UNIT 248

SALT POINT STATE PARK

GENERAL DEVELOPMENT PLAN

March 1976

SALUE POINT STATE PARK

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State of California - The Resources Agency

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SALT POINT STATE PARK RESOURCE MANAGEMENT PLAN AND GENERAL DEVELOPMENT PLAN November 1976

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Governor

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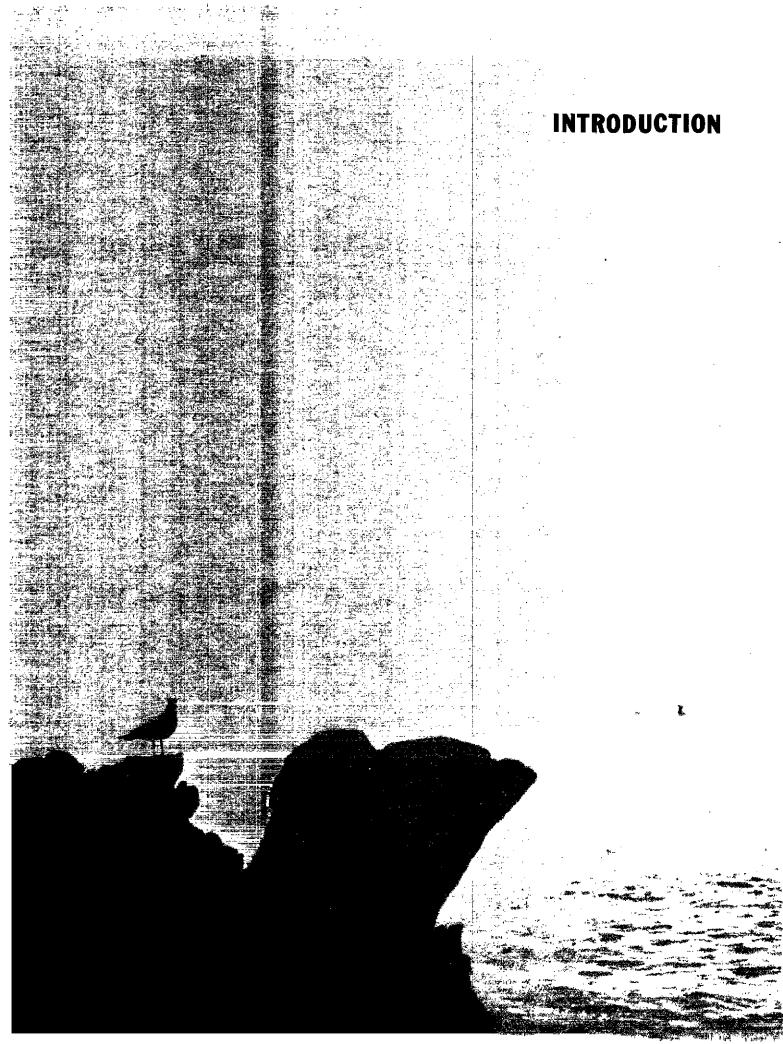
SUMMARY

The existing development at Salt Point State Park is limited to a 30-unit campground, a

parking area on Salt Point that accommodates approximately 60 cars, and 12 miles of trails.

To help meet a rising demand for recreation facilities and, at the same time, to ensure the protection of the valuable resources of the area, the following additional developments are proposed:

Facility	Units	Location
Day Use		
Parking	60	
Picnic	50	Fisk Mill Cove Area
Parking	40	
Picnic	30	Stump Beach Area
Parking	60	Salt Point — North Gerstle Cove Area
Parking	40	South Gerstle Cove Area
Picnic	40	
Interpretive Orientation Center	1	Salt Point — near entrance station
Trails	3 miles	various areas
Overnight Use		
Campground	100	W of Highway 1 — between Gerstle and Ocean coves
Campground	160	Wildcat Creek Area
Campground	120	South Salt Point Ridge
Campground	120	Middle Salt Point Ridge
Multi-use Camps	5 (to accommodate a total of 225 persons)	one W of Highway 1 four E of Highway 1
Campfire Center	1	Warren Creek Area
Total Additional Units:		
Camp Parking (day use) Picnic	500 200 120	



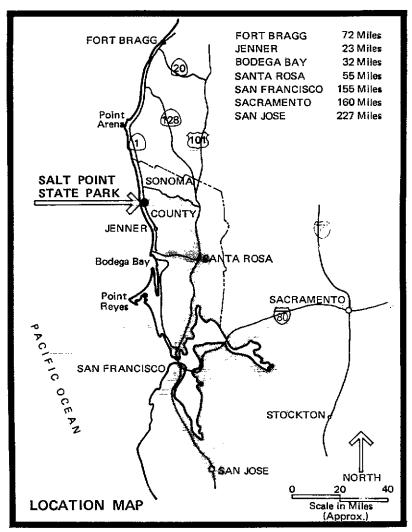


FIGURE 1

INTRODUCTION

Purpose of Plan

The purpose of the Salt Point Resource Management Plan and General Development Plan is to provide a document that will guide the responsible growth and management of resources at Salt Point State Park now and in the future. To achieve this, a thorough inventory of all the cultural and natural resources of the park has been taken and a careful analysis of these made.

Using this comprehensive knowledge of the park in conjunction with an analysis of the recreation needs of the region, it was possible to decide upon a plan of development that would take full advantage of the resources within the limitations imposed by ecological factors. The plan is flexible and can be adapted to unforeseen future changes.

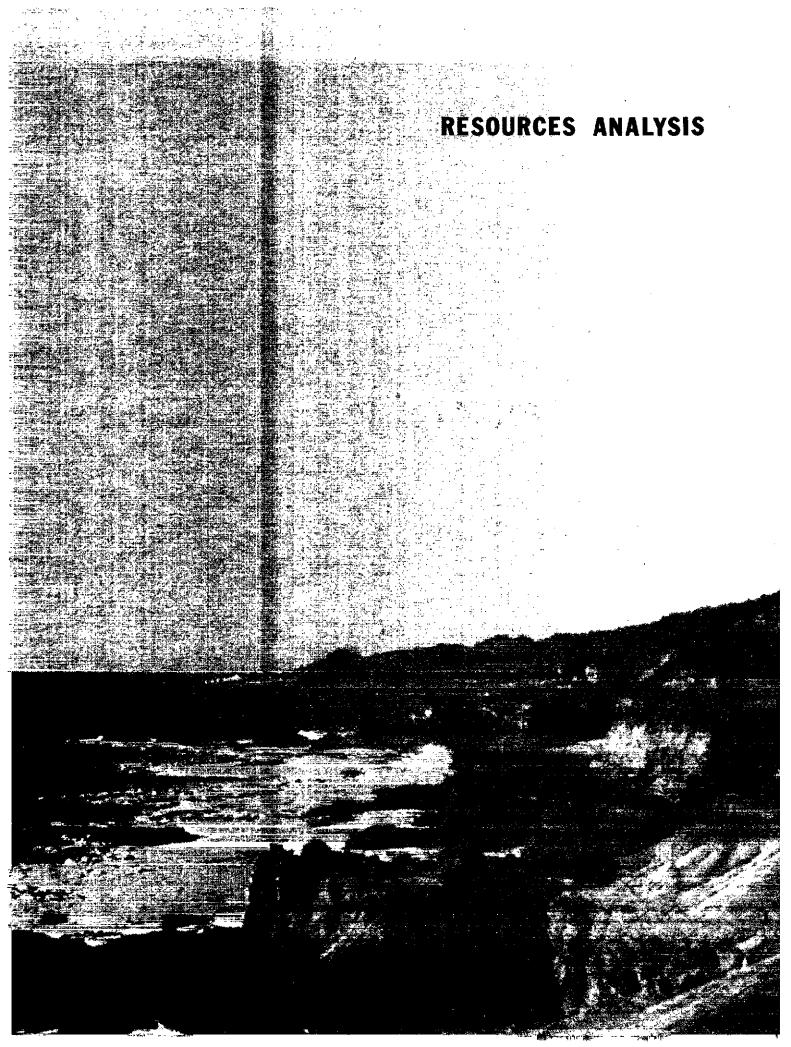
General Description

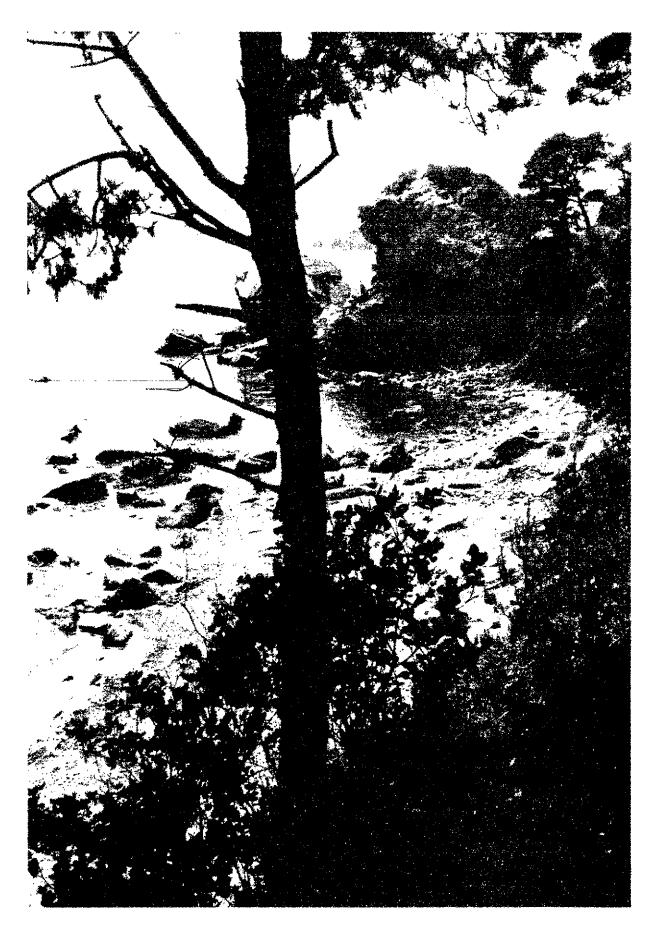
Salt Point State Park is located on the Sonoma Coast 23 miles northwest of Jenner, and approximately 115 miles north of San Francisco on Highway 1. The park contains 3,363 acres, about 80 percent of which lies inland from the highway. The remaining coastline portion of the park is characterized by low, open, coastal terraces that enable the visitor to experience a closer relationship to the ocean than do the higher bluff terraces more common along the north coast.

Since its acquisition in 1968, an average of 80,000 people each year have visited the park. The recreation opportunities here permit a number of diverse experiences including skin diving, fishing, hiking, horseback riding, environmental educational activities, picnicking, and camping.

Although the primary attraction of Salt Point State Park is its open coastline and the contiguous Gerstle Cove Ecological Reserve, there are significant historical and archeological points of interest. The name "Salt Point" is derived from the fact that the indigenous Kashia Pomo Indians came here to "mine" salt that had accumulated in underwater crevices to use in preserving the seafood they caught. The sites of the Indian settlements will be preserved and interpreted for park visitors.

This area enjoys moderate temperatures year-round, typically cool in summer and seldom dropping below freezing during the winter. The best time to visit Salt Point State Park is during the fall after the summer fog and before the winter rainy season. The ocean surface warms up in the course of the summer and the ocean breezes carry the warm, off-coast air inland.





RESOURCE ANALYSIS

The Salt Point State Park Resource Analysis is a systematic evaluation of the existing natural and cultural resources for areas relating to the park unit, and is based on an inventory of these resources. The primary purpose of the resources analysis is to ensure that high-value resources will not be endangered by any proposed recreation development. This analysis of the values is an essential prerequisite to a realistic plan for the development of such elements as campgrounds and picnic areas, trails, roads, and multi-use areas.

Natural Resources

Geology

The complex arrangements of geologic formations at Salt Point have largely been the result of the movement of two geologic plates which rest upon a solid mantle of rock. These features — one known as the Pacific Plate, moving eastward, and the North American Plate, moving westward — are separated by the San Andreas Fault. The stresses created at the points of impact along the San Andreas Fault have caused land west of the fault to be moved in a northwesterly direction relative to the land east of the fault.

Each plate area exhibits distinctive rock and soil types and has unique characteristics. A heterogeneous Franciscan assemblage is found east of the fault. These rocks were involved in large-scale deformations and are predominantly sandstone and shale with erratically distributed deposits of conglomerate, chert, greenstone, serpentine and glaucophane schist, among others.

West of the fault are Cretaceous and Tertiary rocks consisting of marine sandstone, shale and

conglomerate, with minor amounts of volcanic rocks.

Geologic Stability: The purpose of analyzing geologic stability is to identify any highly unstable areas that might be hazardous and to determine those areas whose geological stability will permit various types of development.

The most unstable area is the San Andreas Fault Zone, which includes portions of Stockhoff and Miller creeks. It can be expected that structures placed within this zone will experience some major seismic movement with some damage within their life span. It is recommended that no structures be constructed within this specific area.

Miller Creek and coastal cliff areas are slightly more stable, but still susceptible to damage by secondary seismic forces. Structures located within these zones should be low-occupancy buildings, such as comfort stations or storage buildings.

The remainder of the park lands are the more stable, and will be the principal locations of the

permanent site and building improvements.

Most buildings included in this park development will be of a low-occupancy type. When seismic activity is encountered similar to the 1906 earthquake, structural damage will probably occur, but the chances of personal injury will be minimal.

Figure 2 shows the regions of varying geological stability within Salt Point State Park.

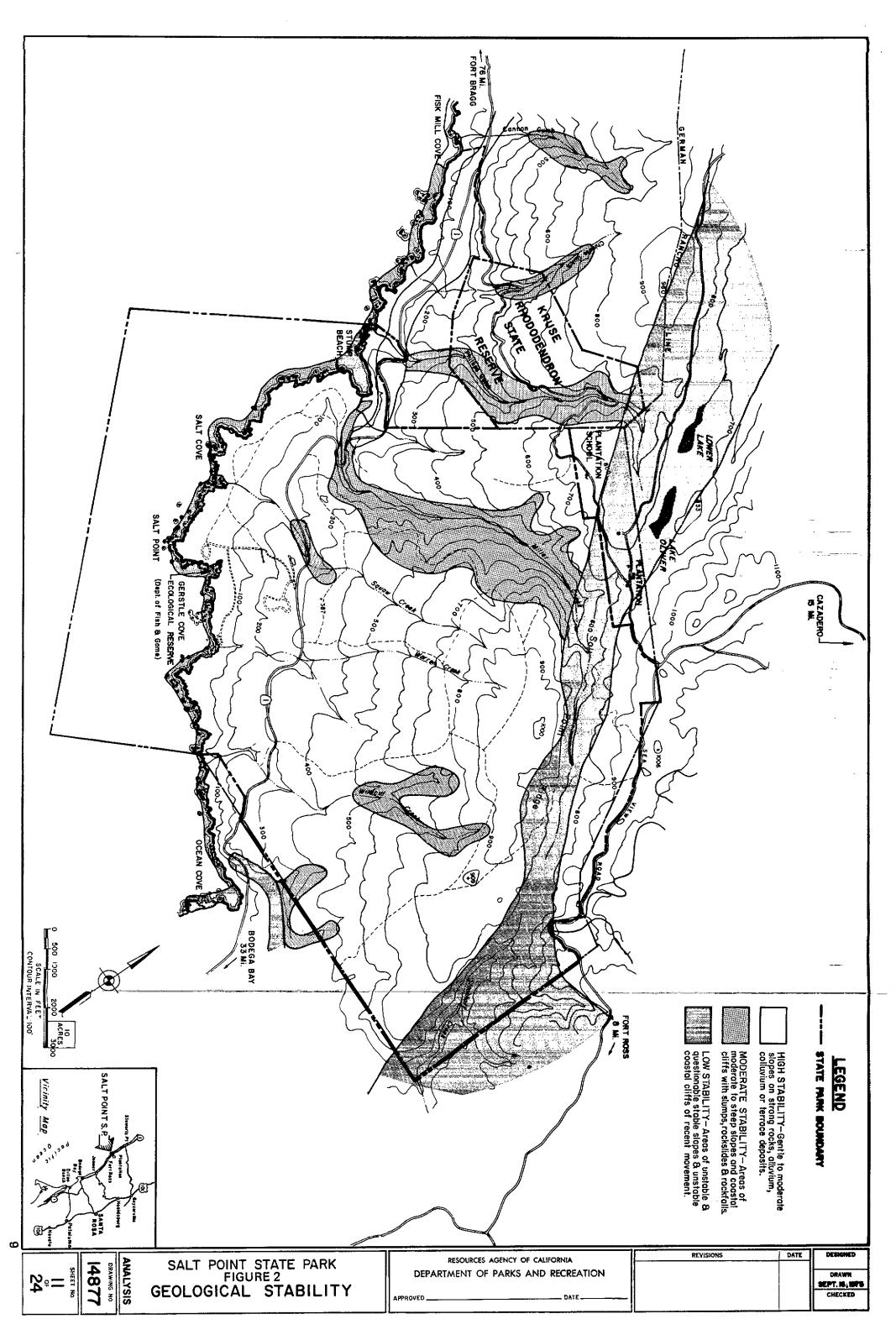
Slope: Slope gradient is measured as a percentage of vertical change in elevation to the horizontal distance in feet. Gradients have a significant influence on a number of the resource variations and determine the degree of development possible.

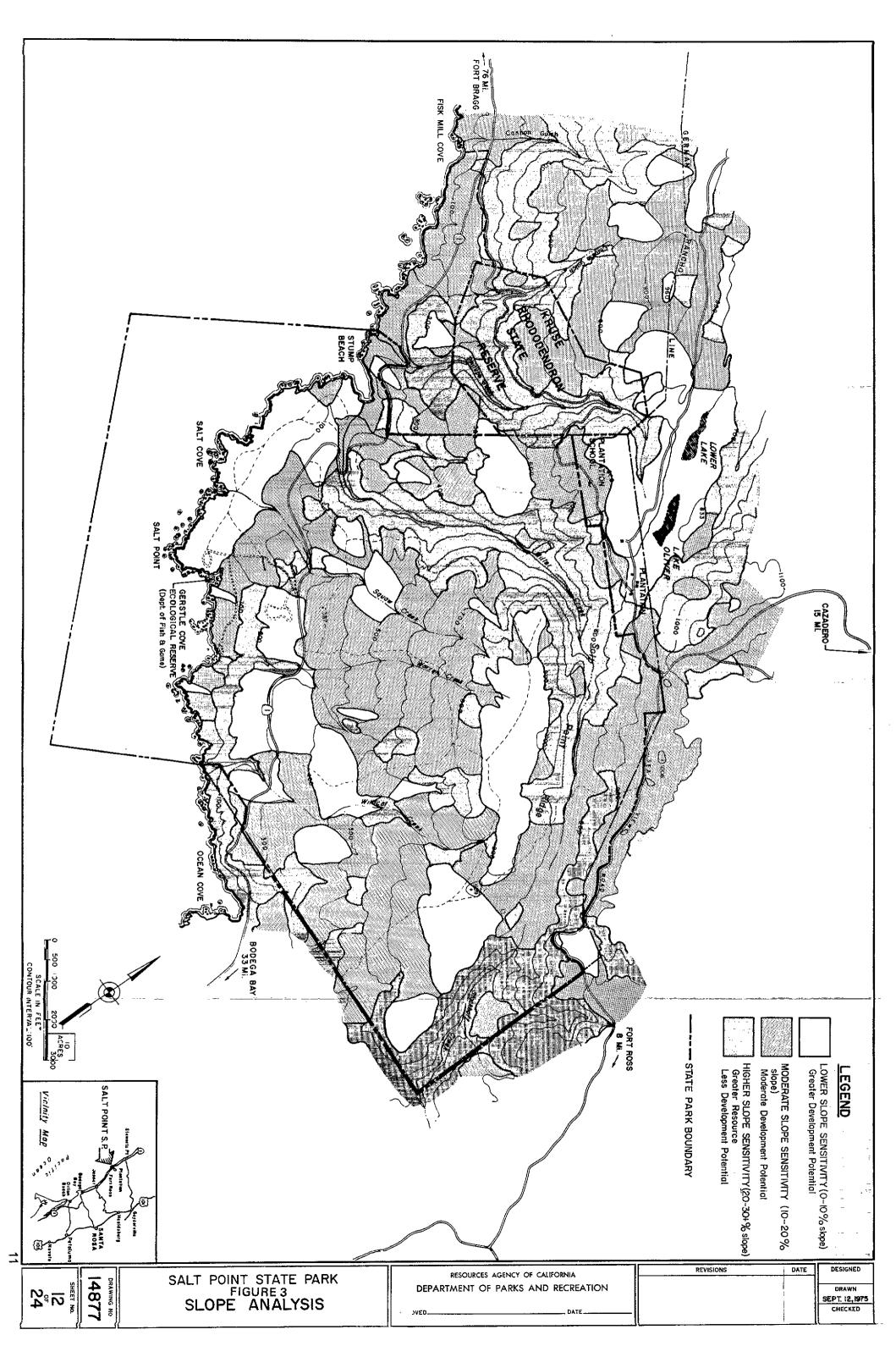
Slopes of 20 percent or greater, for example, have lower water retention capability, are harder to vegetate, erode more easily, and cost more to build on than slopes of 0 to 10 percent. Steep slopes are more sensitive to park development abuse and development on them often results in resource imbalances. Thirty percent or, roughly, 1,000 acres of park lands in this project are slopes of 20 percent or greater, with most of these slopes occurring within the Miller Creek and Stockhoff Creek subwatersheds. This suggests that development in these areas should be limited.

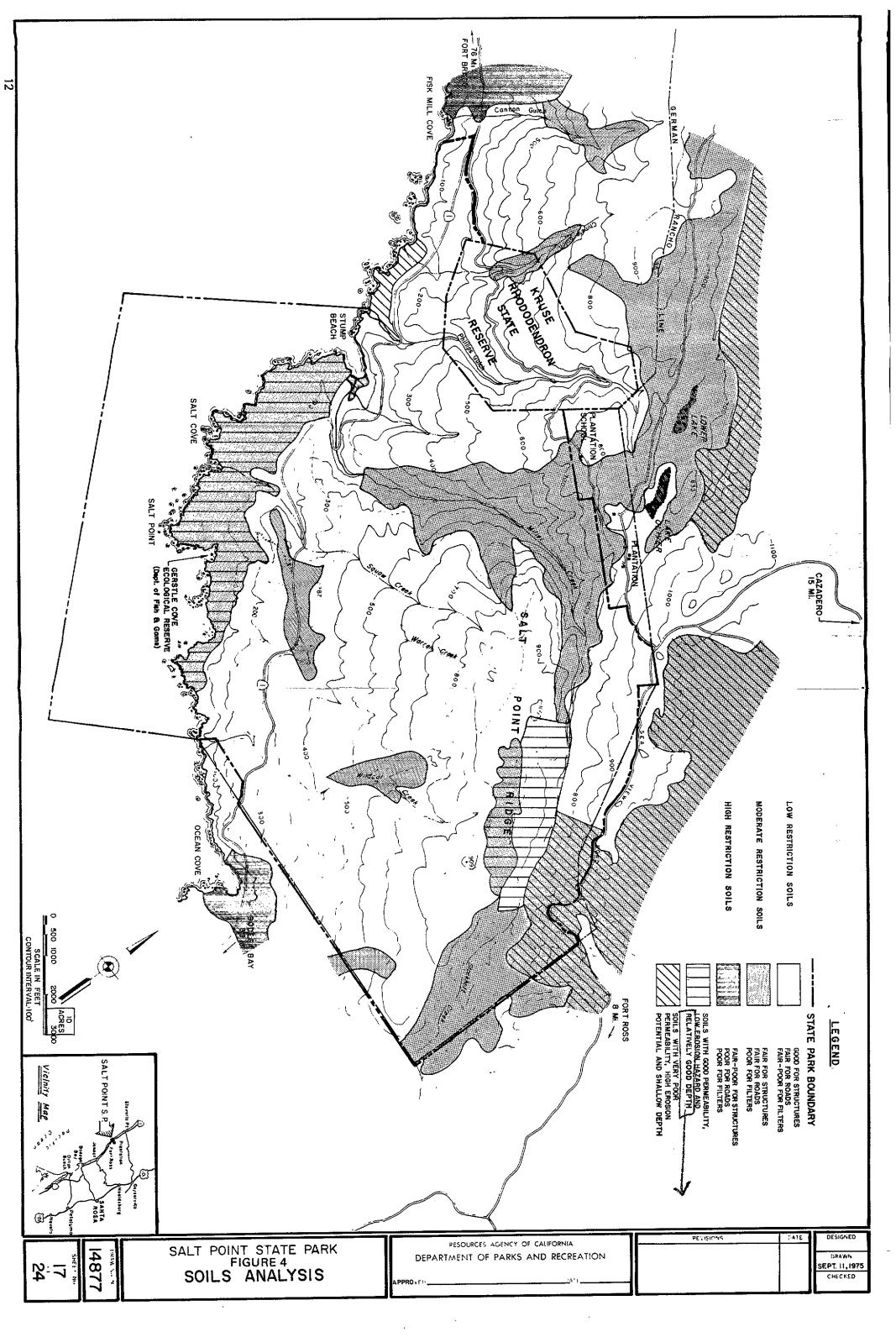
Slopes of 0 to 10 percent are more adaptable from a development standpoint because of ease of construction and cost savings. Twenty-four percent of the park, or about 830 acres, are of 0 to 10 percent slope. This acreage is along the terrace, paralleling the ocean, and along the Salt Point Ridge. These areas are conducive to architectural and other site developments.

The remaining 10 to 20 percent slope areas are spread out over the park, covering a total of 46 percent or 1,544 acres. These areas are moderately accessible and are presently crossed with fire access roads. Park development in these areas would include minor roads, parking, trails and structures for which site work could be kept to a minimum.

Figure 3 presents the slope analysis of the areas of Salt Point State Park.







Soils

Although a wide variety of soils exists at Salt Point State Park, for planning purposes the area may be divided into three basic soil group associations* — the Empire-Caspar-Mendocino, the Kneeland-Rohnerville-Kinman, and the Hugo-Josephine-Laughlin associations. Each has its own characteristics determined by variable factors such as climate, animals, vegetation, fire, and, of course, man and his activities.

The Empire-Caspar-Mendocino Association consists of well-drained and moderately well-drained, strongly sloping to steep, sandy to sandy-clay loams. This association is on old terraces and on uplands near the coast in the northwest part of the county. Slopes range from 9 to 50 percent. The soils formed in material weathered from soft sandstone and shale.

Kneeland-Rohnerville-Kinman Association consists of well-drained and moderately well-drained, nearly level to steep, loams to clay loams. The soils of this association are on the coastal benches, terraces and uplands in the western part of the county. Slopes range from 0 to 50 percent. The soils of this association formed in material weathered mainly from hard and soft sandstone, but partly from shale.

Hugo-Josephine-Laughlin Association consists of well-drained, gently sloping to very steep, gravelly loams and loams. The soils in this association are on uplands, mainly on the northwestern part of the county. Slopes range rom 2 to 75 percent. The soils formed in material derived from weathered, fine-grained, hard sandstone and shale.

The purpose of the soils resource analysis is to determine which soils should be preserved and which soil types will limit park development.

The criteria used in analyzing different soil qualities include permeability, available water capacity, soil reaction, shrink-swell potential, corrosivity, soil depth, erosion potential, and water table.

To be considered for optimal development use, soils must have good permeability, be deep and have low erosion potential. The marine terraces and the prairie areas of this park unit consist of Rohnerville and Rohnerville-Empire Complex soils that possess these good qualities. Soils that erode easily, have poor or very rapid permeability, and are very shallow should be protected from development. If developed, areas with such poor soils would require extensive site work to compensate for their deficiencies.

The areas of moderate soil types would also require site work modifications, but would be considered more flexible in their requirements depending on the intensity of development. In total, these moderate soil types represent about 84 percent of Salt Point State Park lands.

To determine development potential of different soils, basic factors must be considered. For example, high shrink-swell soils present hazards to maintenance of site improvements and structures. (Roughly half the land at Salt Point is of good quality for site work and structures, with the balance being considered only fair.) Road location is influenced by slope, shrink-swell potential, depth of hardpan or bedrock, depth of water table, and rock outcrops. Almost every soil type within the park unit is classified as fair for roads and parking development.

Almost all the soils of the park are identified as having poor permeability and shallow profile depths, and therefore development of septic tank and leach fields to any great extent is not recommended. Percolation tests are needed.

A graphic presentation of the analysis of the soils found in the park is found in Figure 4.

^{*}When an area has a distinctive proportional pattern of soils, this pattern is called a soil association. It normally consists of one or more major soils and at least one minor soil.

Climate

Salt Point experiences a climate that is typical of the north coast region, one of moderate temperatures and precipitation.

Temperatures along the coast remain cool throughout the summer (average is 64°F), and the

winters are generally mild (average is 42°F).

The average annual rainfall is 47 inches. Most of the precipitation falls the colder months of the year, and only light amounts are reported during the rest of the year. Along the coast, low clouds and drizzle at night during the summer provide enough moisture to keep the vegetation green.

The prevailing winds are west to northwesterly and are fairly light most of the time, though

they may be rather persistent in summer.

Figure 5 presents the climate analysis.

Watersheds

The ridge formed by geological uplifting and the San Andreas Fault forms the eastern boundary of Salt Point State Park. The park lies in the North Pacific Coast Watershed and this major watershed is divided into a number of subwatersheds, the largest of which is Miller Creek, covering about 1,200 acres.

Salt Point State Park is fortunate in that its boundaries include almost the entire extent of the subwatersheds, permitting control measures to be instituted to minimize the effects of erosion,

siltation, etc.

Water

The preservation of water resources is vital to the development of Salt Point State Park. Surface and subsurface water quality is particularly important to the proposed park development. Additionally, the marine biotic diversity that the Pacific Ocean provides is a key resource. If the land-based water quality diminishes, the quality of the marine life will diminish. If this occurs, the public interest in and use of the park will probably decrease as well.

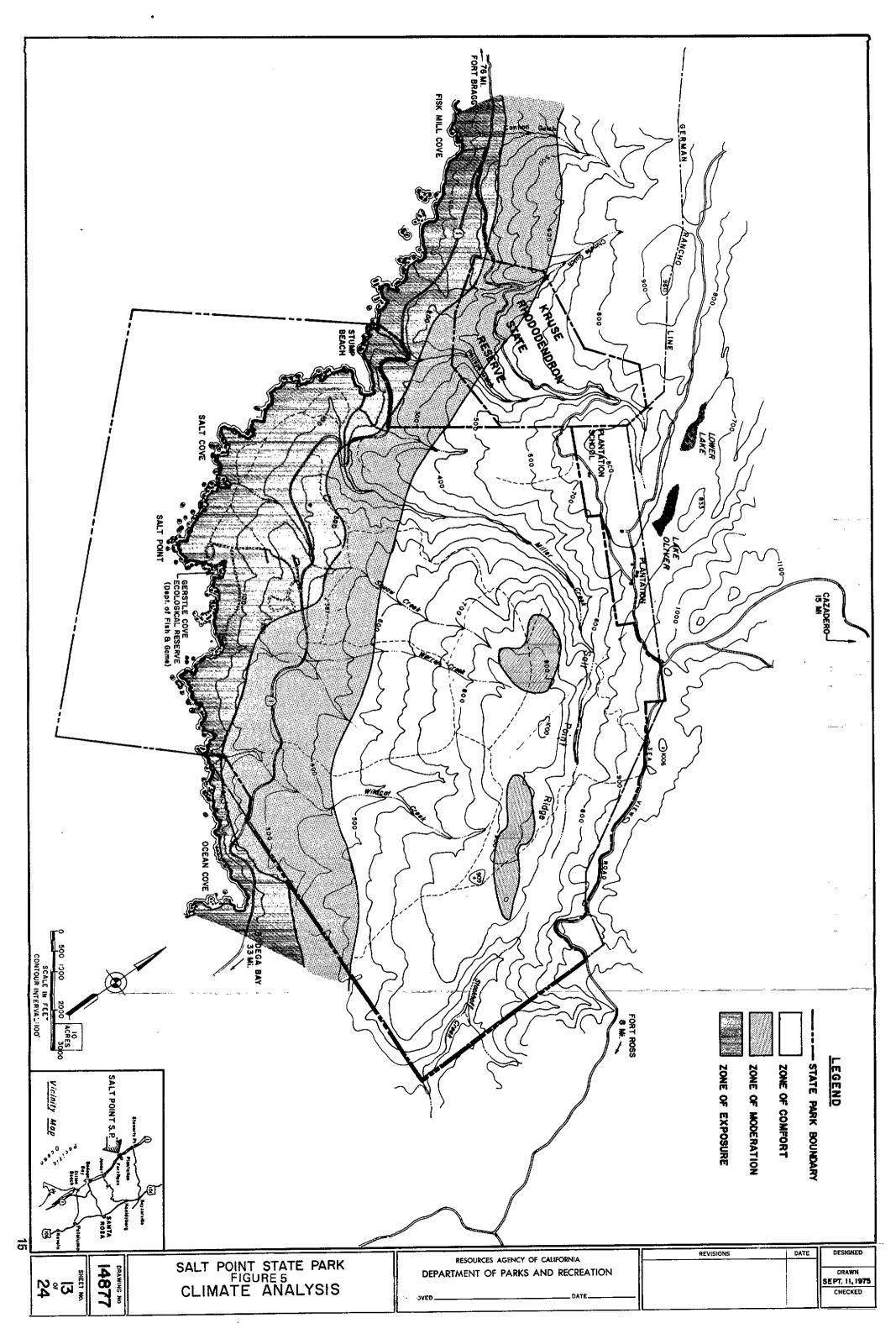
Surface water quality in the creeks and drainages fluctuates by season. Siltation and pollution, if allowed to occur, will be carried to the ocean and ultimately affect the marine resource quality.

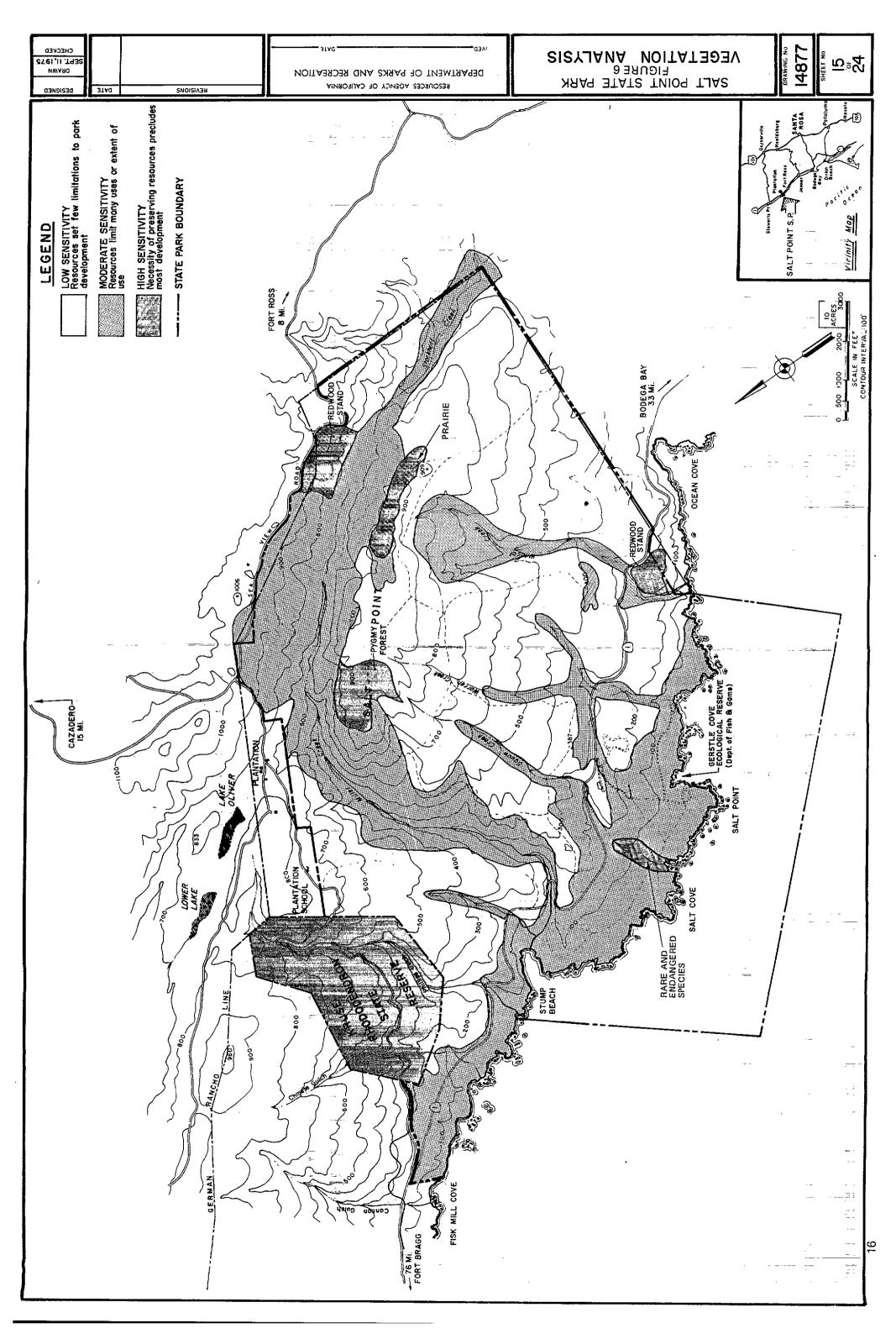
Potable water required for park users will be obtained from wells in the area. There are two existing wells, both within approximately 1,000 feet of Highway 1. Total domestic water supply from these wells is low and its quality is poor. However, the present water supply and demand is sufficiently balanced to provide for the existing recreation development requirements. Proposed developments will require a greater amount of domestic water and will require a higher storage and treatment capacity. Studies are currently underway for determining the best methods of meeting this need.

Development within some subwatersheds may require extensive use of architectural, road, and

drainage water control features which could result in a higher construction cost.

Concentrations of people in public-use areas tend to compact the soil, restricting its capability. This causes water to move more quickly over the surface of the land, eroding the loose dry soil on the surface and depositing it in natural, surface water collectors. This could result in excessive siltation. Therefore, the dispersement of use patterns will be a key consideration in determining the Salt Point State Park General Development Plan.





Vegetation

The vegetation at Salt Point State Park can be divided into three broad classifications — coniferous forest, grasslands, and brush. The conifer association covers about 79 percent of the land area, the grasses occupy approximately 13 percent, and the remaining 8 percent is in brush.

For the most part, the interior of the park is forested with stands of coast redwood, Douglas fir, and smaller areas of bishop pine; the most prevalent hardwoods that are found here are tan oak

and madrone.

Salt Point State Park lies within 12,000 feet of the ocean, thus its vegetation is heavily influenced by climatic effects from the ocean. For the most part, the interior of the park is covered by coast redwood, Douglas fir, tan oak and madrone. A large grassy meadow, known as the prairie, exists along Salt Point Ridge, the main north-south running ridge. Closer to the shore, the bishop pine becomes more predominant. Finally, along the shore, the land breaks into relatively flat terraces covered with various species of grasses.

In the grasslands many of the native perennial bunch grasses have been replaced by introduced

annuals, such as downy and soft chess, foxtail fescue, wild oats, rye grass and oat grass.

One very rare and endangered plant, Veratrum fimbriatum, has been located at Salt Point. Another, Dichondra donnelliana, has been found in the area and is likely to exist at Salt Point.

The various plant communities found here (and some representative plants) include:

Coastal Strand - various sagebrushes, lupines, beach morning glory

Northern Coastal Scrub - paintbrush, California blackberry, seaside daisy, cow parsnip, pearly everlasting

Closed Cone Pine Forest - Douglas-fir, bishop pine, wax myrtle, huckleberry

Redwood Forest — coast redwood, Douglas-fir, California rhododendron, hairy manzanita, sword fern

Douglas-Fir Forest - Douglas-fir, tanbark oak, madrone, blue brush

Pygmy Forest - pygmy cypress, manzanita, California rose bay, huckleberry

Mixed Evergreen Forest - tanbark oak, Douglas-fir, California laurel, coast live oak

Coastal Prairie - eryngium, rush, rib grass, rosin weed, tar weed.

Analysis of vegetation for this project had three purposes. The primary purpose was to ensure preservation of high-value vegetation resources. Mapping and identification of vegetation were used in locating areas of full potential development, and in identifying areas of moderate or limited development potential.

Vegetation has been affected by various activities of man. One of the first man-induced vegetative modifications was created by the Kashia Pomo Indians. These Indians utilized the forest and grasslands of the project for both food and shelter. Today, middens created by their settlement are still evident because such sites restrict most vegetative growth due largely to soil sterility. More recently, logging has created various modifications such as the removal of tan oak for tanning purposes and the utilization of redwood, pine and fir for both construction and firewood. Logging roads are still quite evident and will be for quite some time. Grazing of cattle and sheep has also caused distinctive changes in the growth of vegetation along the terraces. Farming — never really an extensive activity in this area — has had only a minor impact. In recent times, the increase in the number of people and vehicles due to recreation development has caused soil compaction, which in turn results in loss of vegetation and soil from the grassland terraces by wind and sheet erosion.

Vegetation performs several functions that are vital to the project area, and therefore affects land use. Some vegetation can be rare or unique, which suggests it should be preserved for its scientific value. Vegetation also serves to control water within the watersheds, provide soil stability and fertility, and create wildlife habitats. Thus, the vegetation of an area may preclude or limit

development in that area to varying degrees.

The pygmy forest, in the upland portion of the park, represents a rare vegetation community created by unique soil conditions. This area is sensitive and should be designated as a high-value resource. Grasses, predominant on the coastal terraces and the inland prairie provide important wildlife habitats and aid in controlling surface soil erosion. Limited use should be placed on these areas; most development should be placed around the perimeter. Similarly, development within brushland areas should be minimal, mainly because the brush provides no visual screening, climatic and noise buffers. The conifer forest areas could receive more intensive recreation development. Due to their statewide significance, the two redwood stands will be developed only by trails and interpretation.

An analysis of the vegetation is graphically presented in Figure 6.

Wildlife

The wildlife at Salt Point consists of a wide variety of animals, birds and marine life. Marine life provides the most popular attraction, particularly the underwater marine species. Whales, sea lions, and harbor seals can be seen occasionally. The sea otter, which was virtually eliminated from local waters by Russian and Aleut hunters, is rarely seen along the Sonoma coast.

Some common land animals include Douglas squirrel, black-tailed jackrabbit, pocket gopher,

raccoon, striped skunk, wild boar, and black-tailed deer.

A great variety of birds visit and live in the park. Some of the more commonly seen species include the brown pelican, pelagic cormorant, pintail duck, turkey vulture, red-tailed hawk, California quail, black turnstone, gulls, terns, Steller's jay, nuthatch, robin, and a variety of sparrows, owls and woodpeckers.

No rare or endangered species of wildlife (including marine animals) have been reported at Salt Point.

Since plants are the fundamental staple for all animal life, the preservation of high-value wildlife resources depends on maintaining habitats to support their populations. The relationships between the plant and animal life are very dynamic. Plant and animal communities are constantly changing, causing increases and decreases in the wildlife populations. Preservation of various plant communities will help stabilize fauna population.

The fact that no rare or endangered wildlife species has been identified at Salt Point State Park suggests that the park could withstand modifications to various degrees. However, some limits should be imposed. Grasslands, since they are easily damaged, must be considered less flexible for development and human use than the forested areas, even though the grasslands of this project

support fewer wildlife species.

Since the establishment of the Gerstle Cove Ecological Reserve and the prohibition of fishing there, the quality of the marine life within the Reserve has increased in value substantially. This indicates that a moderate approach with some controls of fishing and skindiving along the state park shore is an advantageous tool. Gerstle Cove Ecological Reserve is a designation established by the Department of Fish and Game. The offshore area of Salt Point State Park is managed by the Department of Parks and Recreation under a ten-year permit issued by the State Lands Commission.

Figure 7 presents the wildlife analysis.

Scenic Resources

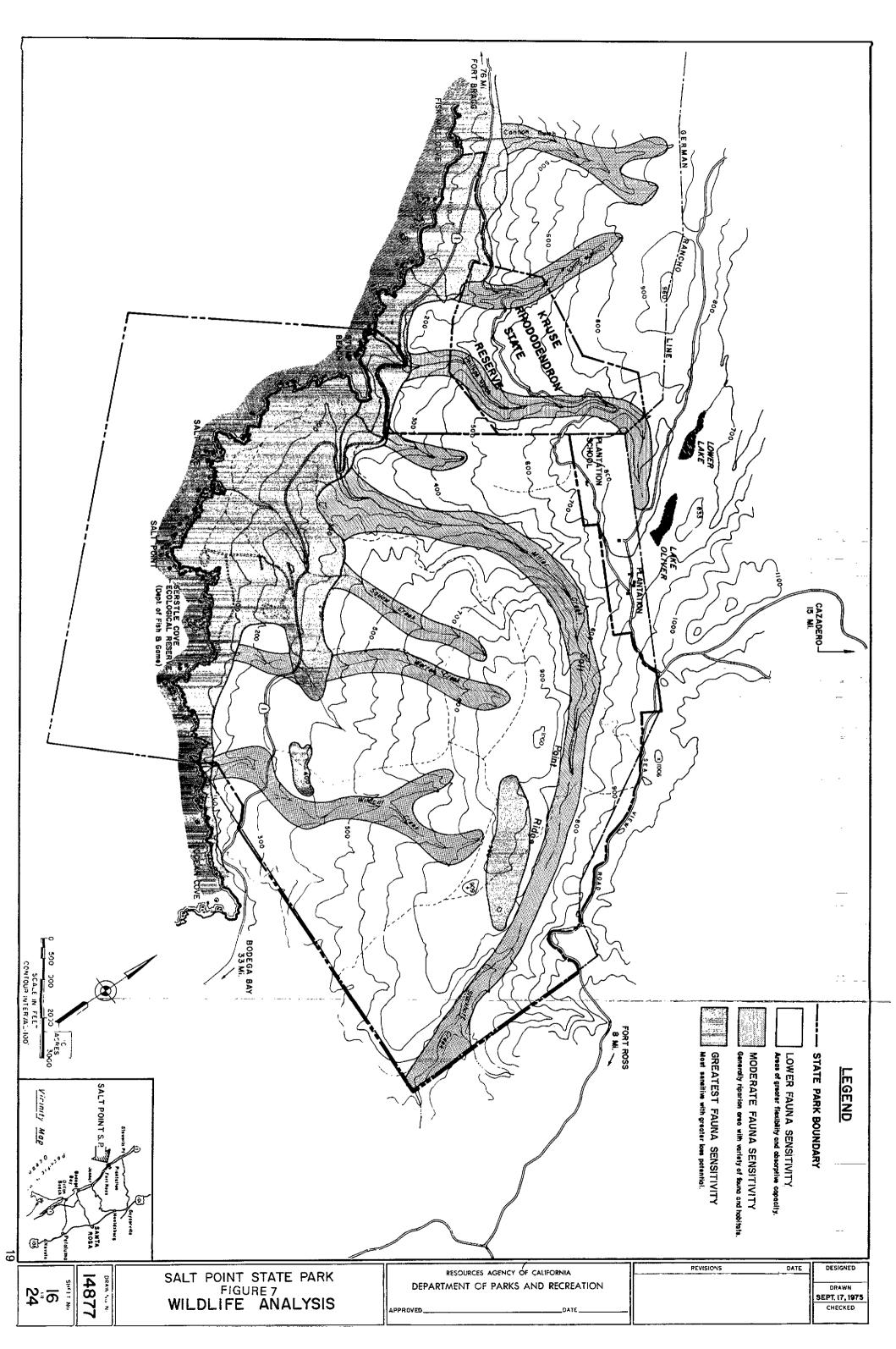
The purpose in evaluating scenic aspects at Salt Point is to identify high-value scenic resources to be preserved and to specify those scenic considerations which could constrain park development.

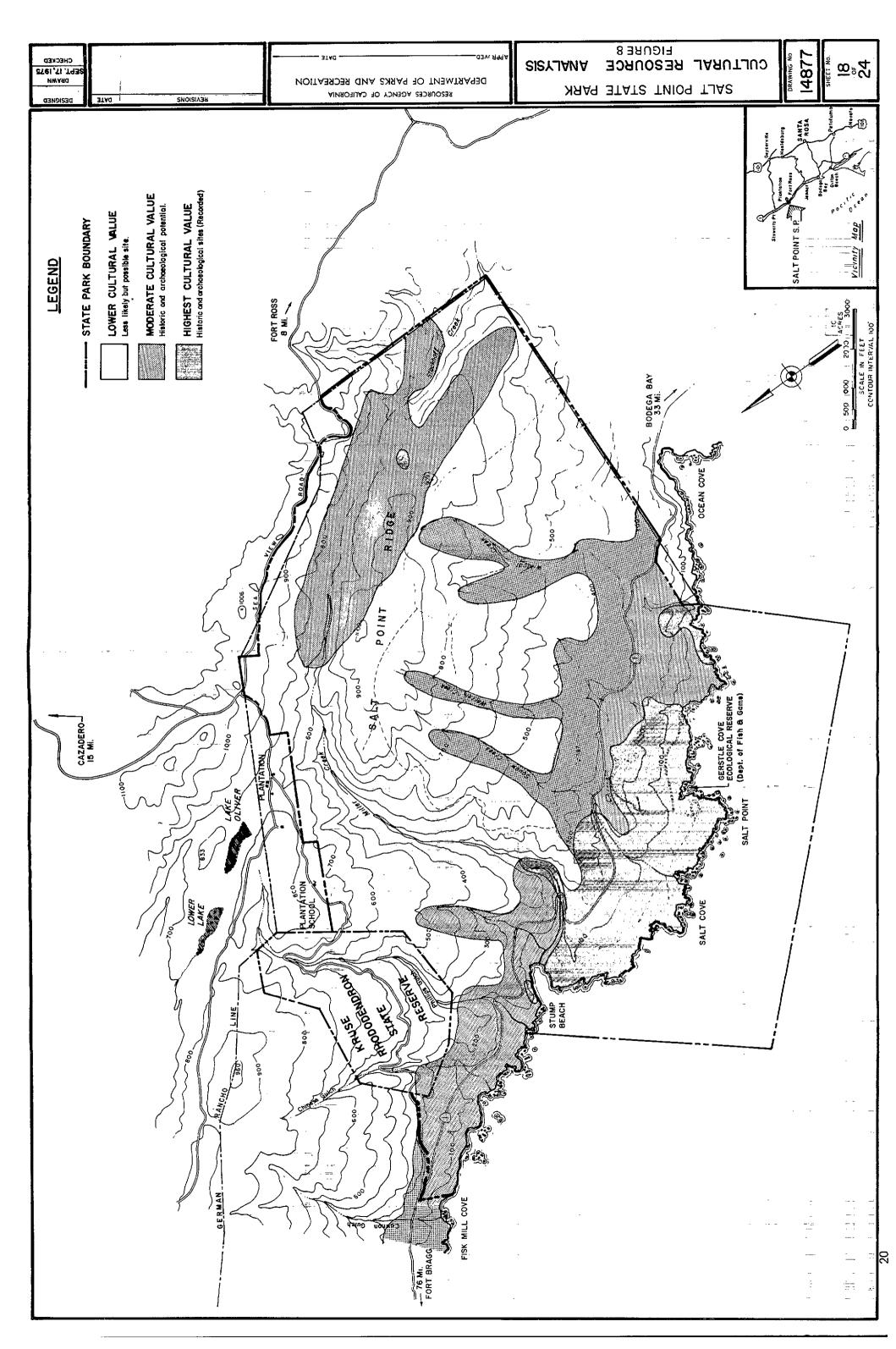
The park interior, lying inland from a line about 400 feet east of Highway 1, is the area whose scenic resources are the most compatible with development. These are areas of varying vegetation types, densities, and sizes that provide good visual screening and enable optimum development flexibility.

The oceanfront belt with open grassland terrace and scattered native trees along its perimeter is least compatible with development. Design considerations for the development of these areas will require greater care in working with the existing land forms to minimize the degradation of this valuable scenic resource.

The remaining scenic areas are generally capable of withstanding moderate park development, as long as it is planned and screened to complement the surroundings. Part of a bishop pine area lying between the coast and Highway 1 falls into this category, as do the pygmy forest, the prairie, Miller Creek and Stockhoff Creek.

Certain areas have been identified as needing short-term rehabilitation. This may be accomplished by either discontinuing use, revegetation with native flora, or redesigning. The existing campground and picnic day-use areas have portions that could be upgraded with minimal improvements.





Cultural Resources

All known archeological sites located along the coast terrace of this project have been recorded and mapped. Evidence indicates that native Americans inhabited this area as long as three to seven thousand years ago. More recently, the Kashia Pomo and the Coast Yuki Indians used Salt Point as a summer residence. This area was an important food-gathering location for marine staples such as abalone, kelp, salt, grasses and others.

Historical features include sandstone quarrying, logging, and agricultural grazing; however, the total cultural significance of these activities has not been finally determined.

Most historical and archeological sites seem to be located within a thousand yards of the ocean, along the terrace and grassland areas because those areas provided access to fresh water and shelter, and were close to the ocean. The area is relatively sensitive to development due to the high occurrence of historical and archeological sites. Other areas have characteristics that suggest a potential for historical and archeological significance. Development within these areas is feasible; however, caution will be exercised in commmitting any development to these areas of the park. Protective measures should be taken for all confirmed and potential sites until their specific cultural significance has been determined.

The development potential of the interior of the park is much greater as it is less likely to have archeological and historical sites.

Shortly after the park property was purchased (January 1968), the existing campground and water system were constructed prior to any cultural investigations. Unwittingly, some campsites were developed near several archeological sites and the public, intentionally or unintentionally, disturbed these sites. All archeological sites are still subject to possible destruction.

The General Development Plan has taken into account all sites, and the Department of Parks and Recreation will continue to modify existing and proposed designs to avoid degradation of significant cultural sites. In the case of existing use patterns affecting significant known sites, available funds can be used to arrest further depletion of the resources.

It is important to preserve archeological sites either through avoiding excavation or through concealment.

Figure 8 presents the analysis of cultural resources.

Recreational Resources

Salt Point State Park has the potential for a wide variety of recreational activities, both active

Gerstle Cove has long been a popular area for skindiving, partially because access roads permit divers to bring their heavy, bulky equipment by automobile to a point near the shore. Although Gerstle Cove Ecological Reserve is off-limits for fishing, most of the cove and all the nearby shoreline waters are open for fishing.

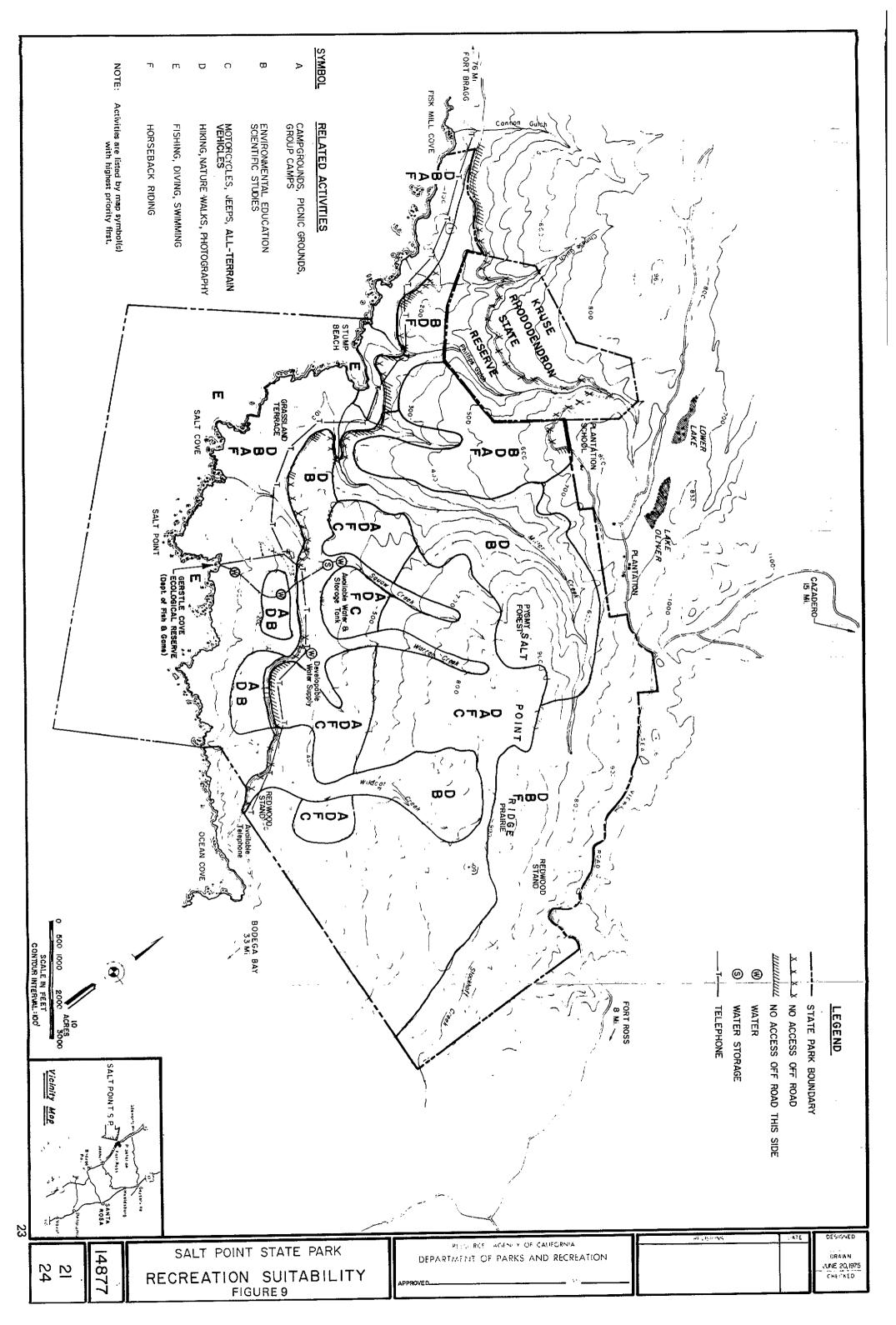
The cool temperatures of the north coast waters preclude swimming except for the hardiest of individuals; however, visitors may enjoy wading and exploring the beaches and tidepools. The gently sloping terrace grasslands along the shore and the scenic views of land and sea lend themselves to

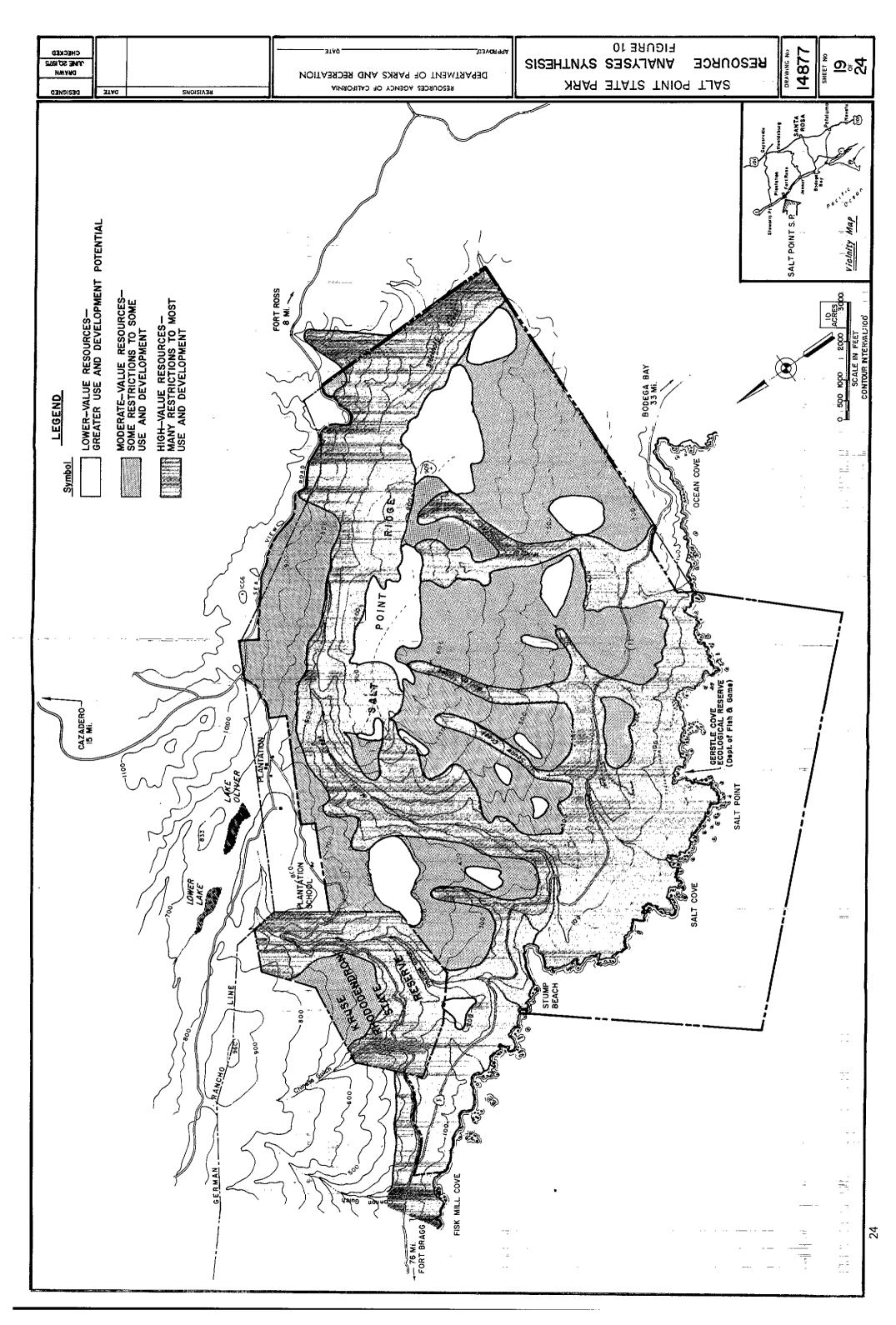
hiking and walking for pleasure, photography, and picnicking.

The wooded inland areas have high potential for camping, horseback riding, hiking and picnicking, and the many different plant communities, including such areas of special interest as the pygmy forest and coast redwood stands, can provide a focus for nature study trails and environmental education programs.

Figure 9 is a graphic analysis of the areas of Salt Point State Park that are particularly suitable for various recreational activities. It does not indicate that those activities will actually take place in

the indicated areas.





Resource Analyses Synthesis

A composite resource analysis has been developed by combining the results of the individual analyses of soil, geological stability, slope, water, vegetation, wildlife, scenic, and cultural resources (see Figure 10). By considering all the resources, it is possible to classify the park lands as falling into one of three categories — areas of lower-value resources, areas of moderate-value resources, and areas of high-value resources.

The areas of high-value resources are those on which recreation development would have the greatest impact and are therefore the least amenable to facility construction. For example, the areas around Miller and Stockhoff creeks have many environmental restrictions, as do the upper part of Wildcat Creek, Phillips Gulch, and the slopes between the first and second terraces. The primary limitation in these areas is the potential for disturbing sensitive vegetation on the steeper slopes. Such disturbance could, in turn, affect wildlife habitats, soil capability for water retention, climatic screening and scenic aspects.

Another deterrent to developing in areas of high-value resources is the fact that construction costs would be high due to extensive grading and architectural and drainage improvements. Construction might result in erosion, siltation, landslides, and the general degradation of natural water courses, and the modifications of resources would probably be visible for an extended period. High-value resource areas cover about 1,621 acres (about 50 percent of the total land area of the park).

Areas of lower-value resources present fewer restrictions to most park developments. There exist some stands of tall trees which may be used for visual and climatic buffering, slopes are gentle, and soils are compatible. These areas represent roughly 9 percent of the total area or about 314 acres.

Development in lower-value resource areas generally would require little or no site work and operations needed for grading and drainage work would be minimal. Their effects on soil and water quality would be more easily accommodated by surrounding areas, creating minimal environmental impact.

Moderate-value resource areas dictate some restrictions to park development. These areas are generally flexible, and, depending on their specific nature, could be utilized for a variety of developments.

Development in areas of moderate-value resources would be less concentrated than in areas of low-value resources, thus lowering the overall environmental impact by dispersing the development intensity over a greater area or relegating use to areas of higher developmental potential.

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RESOURCE MANAGEMENT PLAN



RESOURCE MANAGEMENT PLAN

The Salt Point area was investigated for possible State Park System acquisition in response to the 1966 Senate Resolution No. 152 (Collier). Salt Point State Park was acquired February 1, 1968. The unit was named and classified by action of the State Park and Recreation Commission on December 13, 1968. Additional lands were acquired adjacent to the unit in 1975.

Statutory Purpose

The statutory purpose in relation to State Park classification is given in Section 5001.5(c) of the Public Resources Code. Salt Point State Park is a spacious area (4,114 acres), which includes an offshore area leased to the park by the State Lands Commission, and contains outstanding scenic and natural characteristics. Significant geological, ecological, botanical and archeological values are present in the unit. Broadly speaking, the purposes of Salt Point State Park are to preserve outstanding natural, scenic and cultural values — indigenous aquatic and terrestrial fauna and flora and a significant example of the coastal strip and low coastal mountains ecological regions — and to make available compatible day and overnight public outdoor recreation uses.

Salt Point State Park is to be managed as a composite whole in order to restore, protect and maintain its native environmental complexes. Development shall be for the purpose of making the unit available for public enjoyment and education in a manner consistent with the preservation of natural scenic, cultural, ecological and other values for present and future generations. Therefore, the long-range resource management objectives are the perpetuation and, where necessary, the restoration of scenic, natural and cultural resources of the unit. In order to meet these objectives, development must not conflict with the long-range perpetuation of resources, and use and access must be controlled to avoid irreversible degradation.

The land carrying capacity, as directed in Section 5019.15 of the Public Resources Code, will be determined on the basis of ecologic sensitivity of each ecosystem within the Park System unit. For descriptions of the physical environment and biotic communities, refer to the Salt Point Resource Inventory (1975).

Resource Evaluation

Landscape Provinces

Salt Point State Park is partly within the northern subdivision of the Coastal Landscape Province and partly within the Redwood Landscape Province. It is a prime example of the former, but not an important example of the latter.

Ecological Regions

The coastal strip and low coastal mountains ecological regions are represented at Salt Point State Park. Prime examples of ecosystems (ecological entities) characteristic of both regions occur in Salt Point State Park.

Ecological Entities

Estimate of Pristine Conditions: Both early photographs and the study of soil profile development indicate a much more open condition in pristine times. The more open forest and grassland areas are due to periodic burning occurring during the occupancy of the area by the Kashia Pomo Indians and their predecessors. Owing to grazing and other agricultural activities, coastal scrub has invaded the eroded and depleted soils which once sustained grasslands. The grasslands appear to have been dominated by Idaho fescue and other bunchgrasses, but herbaceous vegetation was also important in the grassland community. Roosevelt elk and California grizzly bear probably roamed the grasslands and forests, and deer were probably not as abundant as today. It is likely that the coastal bluff and strand communities were quite similar to those of today.

Marine communities were undoubtedly quite different than at present. The Kashia Pomo Indians and the sea otters used shellfish (including abalone) and sea urchins for food. The extermination of the sea otters and the radical decline in population of the Indians permitted a very extensive buildup in the numbers of shellfish and sea urchins. The sea urchin is a heavy, non-selective grazer, and the large increase in its numbers has had a drastic effect on kelp beds and other attached marine algae.

Current Plant-Animal Relationships: A number of introduced plants are found in various parts of the park, and many occur in the grassland communities. Some are very competitive and require control measures. Native bunchgrass areas east of Highway 1 are being depleted by introduced wild pig. An overabundance of deer has resulted in heavy browsing on the perennial plants.

Coast redwood and Douglas-fir have been logged, probably near the turn of the century.

The bishop pine forest is often dense and overgrown. However, some areas have grassy understories dominated by large bunchgrasses, mainly Pacific reed grass. The bishop pine is a closed-cone pine and requires fire or high heat to open cones and allow seed dispersal. The pine forest provides cover and seed for a number of birds and small mammals.

The Mendocino cypress pygmy forest occurs in one area and is the southernmost example of its kind. Little is known about the associated animals in this rare community. However, much is known about the plant-soil-geological relationship.

Numerous coastal birds are inhabitants of the coastal strand, bluff and marine communities.

Current Soil-Geologic Relationships: Soils of Salt Point are predominantly derived from sedimentary parent rock. Parent rock includes Franciscan and German Rancho sandstone and shale. Localized areas of greenstone, chert, conglomerate and serpentine occur. Of special concern are the highly unstable areas of glaucophane schists. The surface areas of the coastal terrace contain soils derived from Pleistocene terrace deposits. Soil series derived from sedimentary parent rock include Kinman, Maymen, Rohnerville, Empire, Hely, Hugo, Josephine and Mendocino. Soils derived from old terrace deposits include Baywood, Rohnerville, Caspar, Empire and Noyo.

Declaration of Purpose

The primary purpose of Salt Point State Park is to preserve the outstanding scenic, scientific, natural, and cultural values found on the Sonoma Coast, including offshore areas extending seaward to approximately the 20-fathom line, which is approximately one mile seaward at the north end and one-half mile seaward at the south end of the unit. The offshore areas will be perpetuated for public enjoyment in a natural condition with restoration of pristine conditions wherever feasible.

Most of the marine terrace grassland areas will be retained for scenic and pastoral enjoyment

by people in an open and essentially natural condition.

Young bishop pine forest areas west of the highway may be developed for day or overnight uses, interpretive uses or educational uses, provided their perpetuation is not endangered, and provided the overall aspect of the area for scenic and other pastoral enjoyment by the public is not impaired.

The inland forest areas may be used by the public for day or overnight uses relating to the enjoyment of the coastal scene, provided such uses do not adversely alter the natural appearance of the area or impair its general ecological integrity.

The open highland meadows will be retained for public enjoyment in an open and undisturbed aspect, with no intrusions of features or activities other than trails and related passive uses.

The cultural values of Salt Point State Park, whether currently known (see inventory) or discovered in the future, will be fully protected and interpreted for public enlightenment and enjoyment. There are many archeological sites in the area.

Declaration of Resource Management Policy

The resource management undertaking at Salt Point State Park will consider as its prime objective the perpetuation, restoration (where necessary) and protection of resources for public enjoyment.

Ecosystem Management

The ecosystem concept of resource management will be initiated at Salt Point State Park. The basic management unit will be the biotic community. Each biotic community will be managed with a view toward restoration of the historic vegetation by control or eradication of exotic plants and animals, reintroduction of fire into its natural ecological role, and, where possible, reintroduction of native plant and animal species. Rare or endangered species and their habitats will be protected from intrusion. Unique biotic communities and scenic areas will be preserved. Marine ecosystems will be managed with a view toward restoring a natural balance through sea urchin control programs. Unique and outstanding scenic vistas, bluffs, beaches, canyons, forests and prairies will be maintained free of intrusive developments such as parking lots, roads and campgrounds which damage scenic values or ecosystem stability. All structures along the bluffs should be removed.

Edaphic features will be maintained by erosion control methods and mechanical methods (scarifying or disking compacted bluff soils, old roadbeds, etc.); all cultural resources will be carefully avoided while using mechanical methods. Bluff erosion due to foot trails shall be checked in bluff access areas. Trails will avoid cultural sites and highly erodible areas. Where visitor foot traffic is destructive of resources, planned trails should be built in acceptable locations to accommodate this use. Trails must avoid archeological sites; foot traffic shall be directed away from these areas through appropriate means.

Currently the bluff and coastal terrace areas around Gerstle Cove are suffering from severe human impact. Bluff erosion is severe. Soil compaction around the undeveloped parking lots and overflow campground area is severe, causing restricted plant growth and shifts in species composition. The vegetation has been completely worn off much of the bluff area due to heavy foot traffic between the parking lots and the adjacent sea bluffs.

The existing unimproved parking area on the tip of Salt Point should be disked and the area allowed to revegetate. The proposed additional parking lots for this area should be relocated a few hundred yards to the base of the second terrace, an area that has been highly disturbed in the past and where natural values are much lower (introduced annual grassland community). This would allow a more even human dispersal throughout the coastal terrace. The impact on vegetation and soils would be much less than at present. Also, cars there will not be a conspicuous element, viewed from the entrance road.

Only those ecosystems which are in present need of management activities will be discussed here. With the exception of areas adjacent to the bluffs, the north coastal prairie system is probably the least fragile ecosystem at Salt Point State Park. This community can stand a great deal of trampling without much damage to the vegetation. The vegetation contains a number of introduced grasses and should be managed with the reestablishment of native grass species as the main objective. A program of prescribed ecological burning with possible spring mowing and possible use of selective herbicides should be initiated. The known habitats of very rare and endangered plants should be protected with no development in these habitats. The north coastal scrub ecosystem is not well represented in the unit, but some management is necessary to restore this ecosystem to its natural state. This would include ecological burning on the same schedule as the north coastal prairie.

Management of the bishop pine forest ecosystem should consider as prime objectives reproduction requirements of the beautifully contorted trees on coastal bluffs. Bishop pine stands have declined in recent years due to their dependence upon fire for reproduction. The seed-containing cones of these closed-cone pines remain closed until opened by the intense heat of fire. Fire suppression programs have been in effect for more than 50 years in California. Fire also creates an excellent seed bed for the young pines. Few, if any, seedlings become established in deep litter or duff of an unburned forest floor; some type of disturbance is necessary. Therefore, to maintain this ecosystem, controlled ecological burns should be initiated every five to ten years. In bishop pine areas where developments and controlled burns would conflict, seedlings can be planted to maintain ecological successions.

The coast redwood ecosystem should be managed using controlled ecological burns initiated every 25 years or less depending upon the fuel buildup in the understory.

The pygmy forest ecosystem is an edaphic climax ecosystem. Here the soils are very important to the dwarfness of the Mendocino cypress and other species. Trail construction in pygmy forest areas must not change drainage patterns or be of materials that might leach nutrients into the soil. Fire apparently had no place in this ecosytem, for under natural conditions, fuel was not adequate to maintain fires in the pygmy forest. Fires apparently burned around these areas since they could not maintain themselves within pygmy forest areas. However, the role of fire in the pygmy forest ecosystem has not been well investigated.

Areas Worthy of Natural Preserve Classification

Most of the grassland area between Stump Beach and the existing parking area near Gerstle Cove contains extremely diverse native species with a large number of wildflowers. Much of this area is worthy of preservation. South of the access road several areas have unique natural values. Much of the grassland is made up of an Idaho fescue bunchgrass community of the north coastal prairie ecosystem. This bunchgrass community is one of the best remaining examples of the north coastal prairie ecosystem in the state. Much of the bishop pine parkland is also worthy of preservation from both natural and esthetic aspects. Similarly, the watersheds of Warren Creek (between Highway 1 and the sea) and Miller Creek have very high natural and esthetic values. The rugged shoreline between South Gerstle Cove and the south boundary of the unit has high esthetic value and is quite reminiscent of the Point Lobos coastline. An interpretive and scenic trail system could be developed through these areas. East of Highway 1, the natural and cultural values require further assessment. However, the pygmy forest, the prairie, and the southernmost meadow on the third terrace all have unusual natural values. The riparian zone of Wildcat Canyon is also of high natural value.

Management Recommendations

In order to assure adequate protection of the coastal resources at Salt Point State Park, development should be located in the ecologically less sensitive areas of the park. Trails should be developed along streams and canyons and beside meadows and pygmy forest areas. Wildlife management should look toward the eventual elimination of the feral pig from the park.

All Department activities in the park shall be carried out within the guidelines established by the Department's Resource Management Objectives.

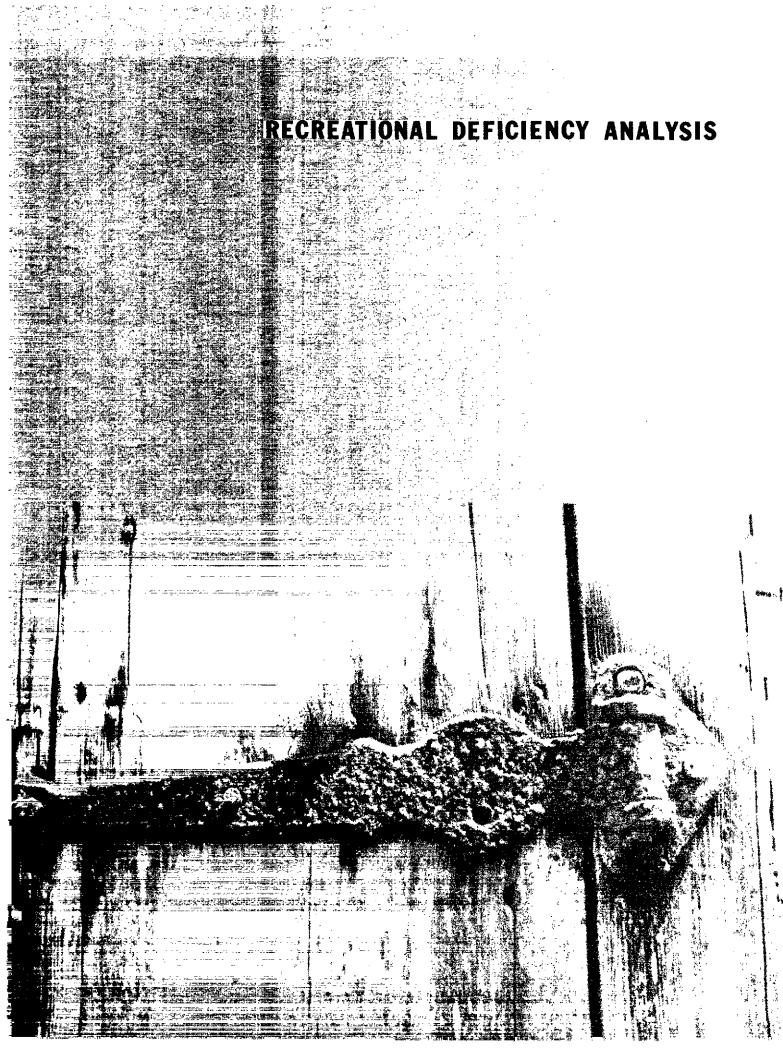
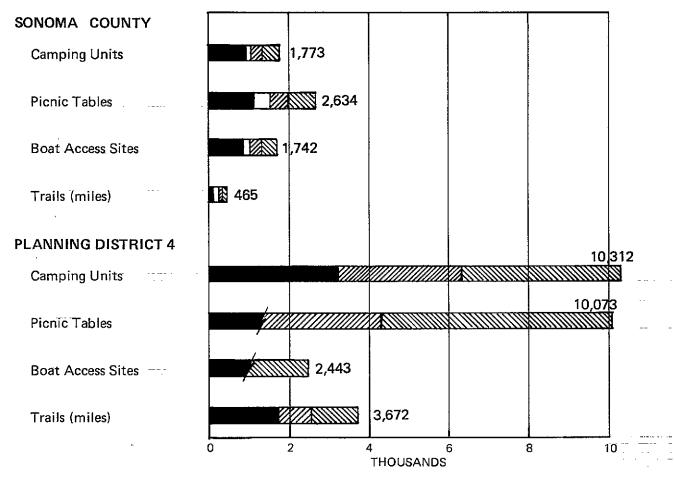
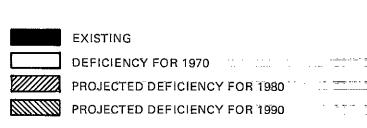


FIGURE 11 SUMMARY OF RECREATION DEFICIENCIES (Sonoma County and Planning District 4)





RECREATION DEFICIENCY ANALYSIS

Salt Point State Park is located within Planning District 4 of the California Outdoor Recreation Resources Plan (CORRP). It is a nine-county district centered around San Francisco and, though it comprises less than five percent of the state's land area, it has twenty-three percent of the state's population. Due to this population density (the highest in the state), there is a severe deficiency of recreation land. The projected population growth for this district (approximately a twenty percent increase in the next twenty years) makes it imperative that open space and land for recreation development be preserved.

CORRP has stressed the scarcity of camping facilities within Planning District 4. Because of the tourist attractions of this district, competition is keen between residents and non-residents for available campsites. The demand for camping opportunities is greatest along the Sonoma coast, on which Salt Point State Park is situated. Table 1 gives the visitor origin data for the park.

Figure 11 summarizes existing facilities for camping, picnicking, boating, and hiking, as well as the projected demands for the next two decades, both for Sonoma County alone and for the entire Planning District 4. Development of overnight camping facilities here would particularly relieve the increasing pressure on nearby Fort Ross with its historical interpretative program.

The rapid increase in demand for recreation facilities at Salt Point State Park is evidenced by the fact that in 1972, during the peak season of 92 days (June 1 to August 31), it operated at capacity for 9 nights; in 1973, this figure increased to 75 nights.

Visitor attendance steadily increased until the 1974-75 season (see Table 2). The reduction in the use of the park that season may be the result of economic factors such as the fuel shortage, or it may mean that people are restricting their trips to shorter distances but staying longer at one location.

Table 1 Visitor Origin

1970 visitor origin information for Salt Point State Park yields the following:

Metropolitan Areas Percent		Parties	
San Francisco-Oakland	31	303	
Sacramento	22	215	
San Jose	5	52	
Los Angeles-Long Beach	4	41	
Stockton	3	24	
Out of State	8	75	
Other	27	269	
Total	100	979	

In 1969 the visitor origin for overnight camping at Salt Point State Park was:

Metropolitan Areas	Percent
San Francisco Bay	68
Sacramento-Central Valley	18
South	7
Out of State	7

Table 2 Visitor Attendance at Salt Point State Park

Fiscal Year	Attendance
1970-71	74,859
1972-73	83,704
1973-74	88,119
1974-75	75,967

Skin Diving: There are approximately one million skin divers on the west coast and this number is bound to increase as leisure time, income, and the public's interest in marine science increase. The north coast area (Oregon border to Golden Gate) accounted for 265,000 activity days* of skin diving in 1970 and by 1980 it is projected that 400,000 activity days will be expended for skin diving. Five percent of the visitors engaged in recreation activities on the north coast participate in the activity of skin diving.

Safe and easy access to the ocean is a major demand by the skin divers. The carrying of heavy and sometimes awkward equipment makes easy access desirable. Since most of the good skin diving takes place in rocky areas, the physical makeup of the terrain offers only limited access to these areas. Salt Point State Park is popular because of its ease of access.

Skin divers can be accommodated at existing day-use facilities at Salt Point State Park; there are adequate parking and picnic areas close to the skin diving areas. The 1973 day-use figures show only 21 days at capacity and no day-use turnaways. There is a need for more camping facilities to better accommodate skin divers staying overnight.

Overnight Facilities: Besides the day-use activities of hiking, picnicking, horseback riding, and skin diving, overnight camping is enjoyed by a large number of recreationists who come to the Sonoma coast. In 1973, the 31 existing family camping units were filled to capacity for an annual total of 130 nights with 367 recorded camping turnaways.

Most groups prefer to camp together and this is usually not possible in a family camp area. The establishment of one or more group camps at Salt Point State Park would accommodate a variety of groups and at the same time relieve pressure on the family camp units.

Skin diver and equestrian groups frequent the park. The quality of skin diving at Salt Point brings skin diver groups from many areas of the state. The twelve miles of horseback riding trails at the park attract many equestrian groups. A group camp would be justified and the variety of groups using the park would ensure its use.

^{*}An activity day is defined as the participation by one person in one activity on one day. A visitor might fish, skin dive and picnic in the course of one day. He would be counted as three "activity days" because he participated in three different activities.



LAND USE PLAN

The Land Use Plan shows the land uses that have been assigned to various portions of Salt Point State Park. Prior to making this determination, two basic studies were carried out — developing an allowable use intensity plan and specifying the carrying capacity of the park unit as a whole.

Allowable Use Intensity Plan

The allowable use intensity plan delineates areas within the boundaries of the park that are ecologically suitable for various intensities of use. It establishes the maximum number of people that an acre can accommodate without unduly compromising the resource values of that area.

The allowable use intensity plan is based on the conclusions developed through the resource analysis. The development of facilities, the relationship of these facilities to the environment and the impact of the user pursuing a specific recreation activity are the factors that have meaning in relation to use intensity.

Three levels of allowable intensity were assigned to areas in this park: 0 to 5 people per acre, 5 to 15 people per acre, and 15 to 50 people per acre. The determination of these maximums was based, in part, on an evaluation of the way the resources are standing up under present-use patterns. The evaluators considered the approximate number of people who used a particular zone over the course of a year. If that use degraded the resources, a lower use intensity for the zone was recommended.

In the areas where present use was not a guide, planners drew on their knowledge of various appropriate criteria such as slope, vegetation, erodibility of soils, etc.

The result of these determinations is shown graphically on the Allowable Use Intensity Plan, Figure 12.

Carrying Capacity

Section 5019.5 of the Public Resources Code stipulates that the carrying capacity of a park be determined before any recreation development plans are prepared. The carrying capacity can be defined as the total number of visitors that could be accommodated at one time within a specific park unit without substantially detracting from either the integrity of the resources or the quality of the visitor's experience.

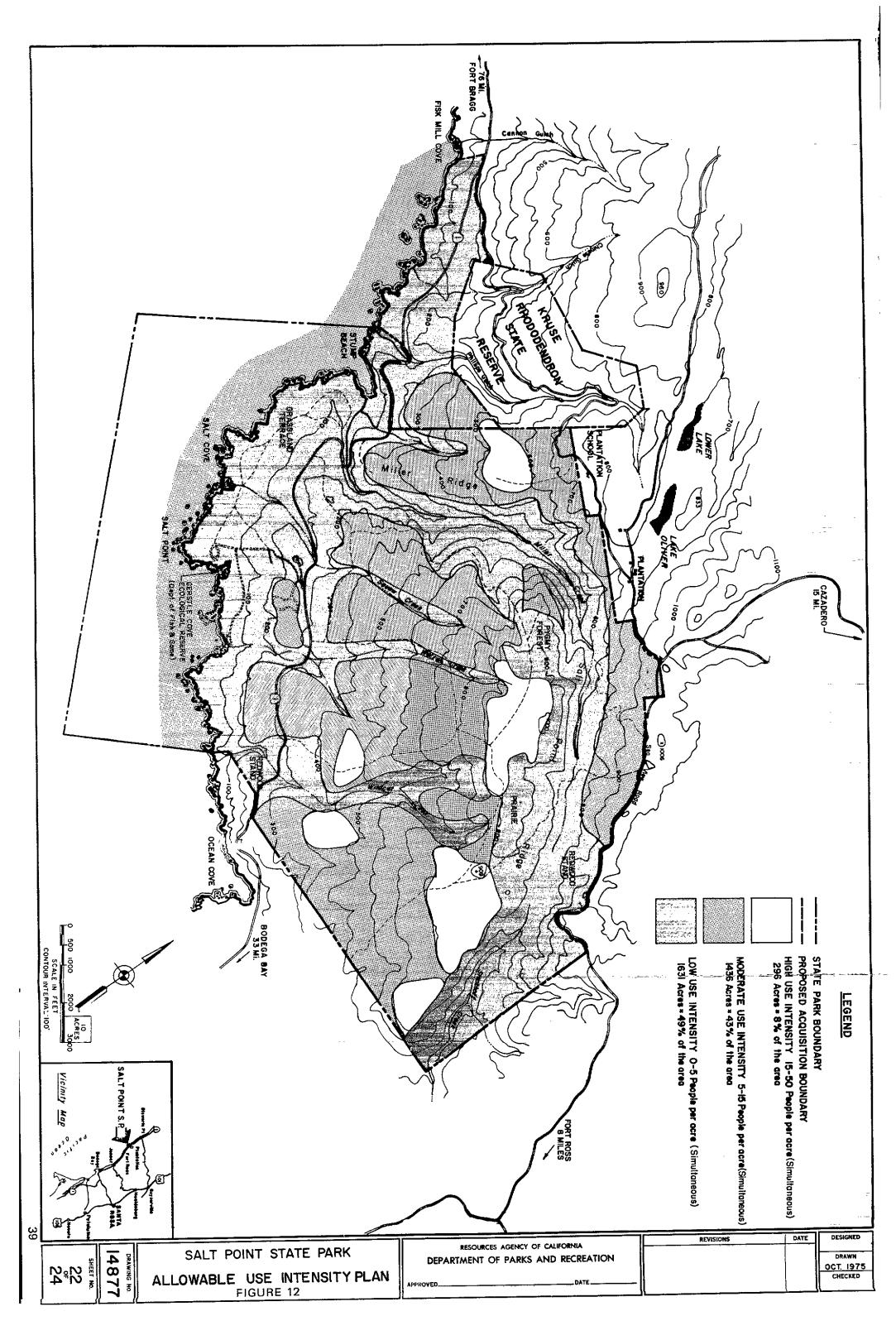
Although the natural resources of the area have the greatest influence on the selection and location of different types of development, another extremely important factor is the desire to maintain the highest quality of visitor experience possible. This means that the carrying capacity may be a figure considerably lower than the allowable use intensity plan permits, since the quality of experience is greatly affected by any overcrowding. The carrying capacity also takes into account the cumulative effect of impacts and the recovery potential of the resources over a year's time. For Salt Point State Park, this carrying capacity has been determined to be 3,500 persons. The planners believe this to be a realistic figure of how many people the park can handle with minimum harm to its resources and maximum value for the public.

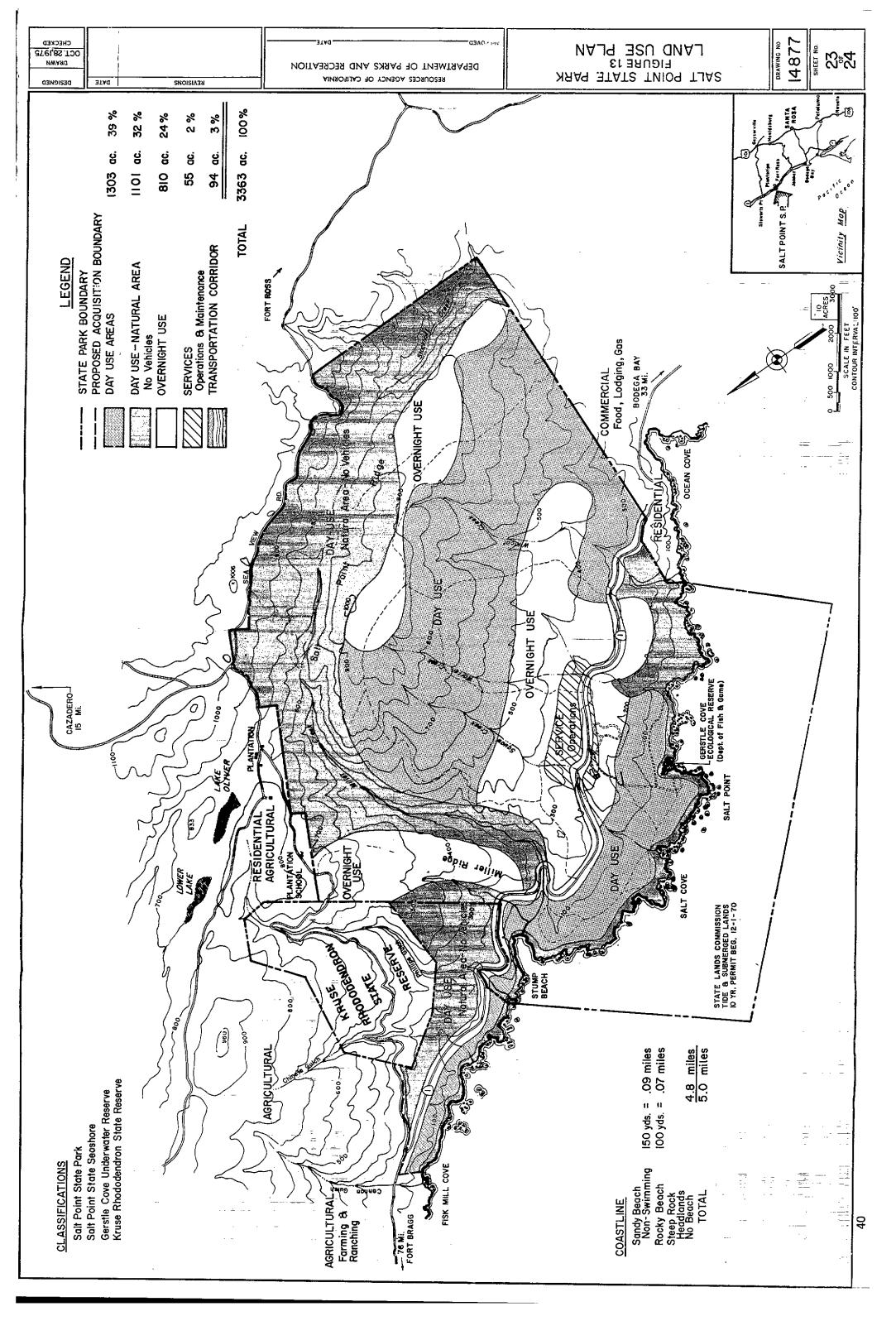
The Land Use Plan (Figure 13) is a graphic representation of those recreation developments with supporting facilities that were judged appropriate in the light of the carrying capacity.

In designating uses for particular areas, the planners worked within the limitations imposed by normal cost factors as well as the need to preserve the natural and cultural values.

Salt Point State Park can be divided into five basic land uses: overnight use, day use, natural areas, transportation, and services.

Overnight uses include family campgrounds and group campgrounds. This category encompasses the forested land between Highway 1 and the shoreline (in the southern portion of the property), the land immediately east of the highway, Miller Ridge (north of Miller Creek), and Salt Point Ridge, lying parallel to the shore in the portion of the park furthest inland.





Day-use areas for such activities as picnicking, bird watching, hiking, horseback riding, and photography will include most of the coastal terraces, the middle slopes of the park, and the area from Stump Beach northward to Fisk Cove.

Two areas will be prohibited to all motorized vehicles to preserve their natural resource values. These areas comprise the Miller and Stockhoff creeks and the steeper slopes on either side of the creeks, and an area between Highway 1 and Kruse Rhododendron State Reserve. The latter area acts as a natural buffer between the Reserve and Salt Point State Park and can be used as an extension of the Reserve.

The transportation corridor consists of Highway 1, parallel to the coastline, that acts as a major access to various points within the park.

A fifth category includes the services. These are facilities needed for the administration and operation/maintenance of the park, such as contact stations, ranger residence, trailer sanitation station, equipment storage, and water treatment plant. This area is centrally located with easy access to campgrounds, picnic grounds, etc.

The quality of the marine environment of the off-shore property, particularly of the Gerstle Ecological Reserve, will be protected by regulations on fishing and any other uses whenever studies indicate this to be advisable.

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GENERAL DEVELOPMENT PLAN



GENERAL DEVELOPMENT PLAN

The General Development Plan is a description of the specific facilities that should be provided at Salt Point State Park to enhance the public's enjoyment of the park's natural and cultural resources while exercising controls to preserve these same values. This plan represents an equitable compromise between the need for recreation space and the necessity to use all resources wisely.

The process of making these determinations followed a logical pattern. Detailed inventories of the various resources — scenic, geological, biotic, edaphic, and cultural — permitted the determination of a land use assessment. This information, considered in light of the public's recreation needs, resulted in a development plan that includes six elements: overnight use (family and multi-use camp units), day use, natural areas, service areas, utilities, and interpretation. Figure 14 presents the General Development Plan. Development will take place in stages as funding becomes available.

Overnight Use

Family Camps: In the next phase of development, the existing campground of 30 units will be upgraded and a new campground containing about 100 family units will be constructed adjacent to the existing campground, in a bishop pine forest west of Highway 1.

Later development proposals include a campground of approximately 160 units in the south central section of the park, east of Highway 1, and two areas of 120 units each along the edge of Salt Point Ridge in the park interior. Neither of these two camps in the interior will intrude upon the pygmy forest or the prairie.

Multi-Use Areas: Initially, two such areas are proposed for development — one for 25 persons near Salt Point on the west side of the highway, and one for 50 persons east of the highway, near Warren Creek.

Later development would include three additional multi-use areas. These multi-use camp units will allow flexibility of use and will increase efficiency. Use of these units would include group camping, day use, and overflow camping by a variety of users such as equestrians, transient hikers, bikers, environmental education groups, and campers in self-contained recreation vehicles. Together all five of these units will accommodate about 225 people at one time.

Day Use

Day-use areas will include parking, picnic areas, and natural areas. In the next stage of development there will be constructed a 60-car parking facility on Salt Point in the northwestern corner of Gerstle Cove.

Some trails will be constructed in the next phase of development. In all, about sixteen miles of trails are planned, including several self-guiding nature trails.

Other development includes additional parking and picnic facilities. There will be parking below the contact station on the west side of Highway 1, an overflow, off-pavement parking for 60 cars. There will be 40 picnic units with parking spaces for 40 cars constructed near the northeastern corner of Gerstle Cove. At Stump Beach there will be parking for 40 cars and 30 picnic tables, and at the northernmost corner of the park, there will be parking for 60 cars and 50 picnic tables provided (day-use facilities will include a total of 260-car parking spaces and 120 picnic tables).

Natural Areas

Consideration is being given to designating the grassland terrace between Miller Creek, Squaw Creek, Highway 1, and the ocean a natural preserve. As was pointed out earlier, this area is one of the few coastal areas in the north which offers the visitor easy access to the ocean and low, open, coastal terraces for hiking and nature study.

The pygmy forest and the prairie along Salt Point Ridge will be preserved in their natural state for the visitor to enjoy. They will be managed and interpreted as a single unit.

Service Area

The service area will be centrally located east of Highway 1. During the next development phase there will be constructed in this general area two resident-employee trailer sites, and a service yard containing a vehicle-storage area, gasoline and oil storage facilities, and a garage with space for general storage. Other service facilities to be constructed will include a contact station and a double trailer sanitation station on the west side of Highway 1.

Subsequent development will include a second contact station and a campfire center on the east side of Highway 1; a visitor orientation center, various interpretive facilities, and some means of safe highway crossing for pedestrians and vehicles will be developed in other locations within the park.

A camp store may be established as a concession if a definite need develops.

Utilities

The present water supply from the two existing wells will meet the demand of the additional facilities planned for immediate development. An additional water storage tank will be necessary. To meet the water need anticipated for ultimate development, an additional water supply with treatment and storage facilities will have to be constructed. A Department of Water Resources study indicates that geological formations within the park can be expected to yield a volume of water that will meet the needs of the General Development Plan.

Existing toilets are of the pit type. Percolation tests will be taken to determine the feasibility of using leach fields for future developments. Ultimate development will require waste treatment and disposal on-site or near the park. Early development phases will be accommodated by the leach fields or by transporting sewage from developments to Santa Rosa for disposal.

Electrical and telephone utilities are available within the park, the lines running near the Coast Highway and generally parallel to it.

Interpretation

Salt Point State Park, with its heritage of Native American and early Californian occupation, diverse plant and animal communities, and fine examples of the physical processes shaping the coast of California, lends itself to a rich interpretive program. The major themes that will be the basis for interpretation at Salt Point are as follows:

Native American Theme: The Salt Point locale was originally inhabited by the Pomo Indian tribes, who used this area extensively for food gathering. The remains of many of their camp and village sites are easily located on the terrace and adjacent forested areas.

Historical Theme: The history of the white man at Salt Point begins in 1812 with the establishment of Fort Ross by Russian settlers. The Russians departed in 1841; later Salt Point was part of a land grant made to a number of Germans who attempted to farm the land. The area's history followed lines typical of this part of California.

Terrestrial Biotic Communities Theme: Most of the plant associations common to the northern California coast can be found at Salt Point State Park (coastal strand, northern coastal scrub, closed cone pine forest, redwood forest, Douglas fir forest, mixed evergreen forest, coastal prairie). In addition, a rather unique community occurs within the park — the pygmy forest. These plant communities support a diverse assortment of mammals, birds, reptiles and amphibians.

Marine Biotic Communities Theme: Clearly one of the major attractions of Salt Point State Park is the fine stretch of shoreline it makes available to the public. Though the park has been open for only a few years, it already receives heavy use from fishermen, abalone hunters, and scuba divers. It also has one of the few underwater ecological reserves in the park system and thus presents an excellent opportunity to interpret marine biology.

Geology Theme: The three dominant geological features of Salt Point are: 1) the San Andreas Fault, 2) the rocky shoreline and small islands along the coast, and 3) the knobs and ridges of bare rock scattered across the grassy coastal meadow. These three highly visible geomorphic features will illustrate the processes involved in shaping the coastal landscape.

Interpretive Media and Methods

Interpretive Center: At present, one of the existing A-frames is being used as an interpretive center. In the early stages of park development, this facility or a substitute should be expanded to include more extensive exhibits and displays, an observation deck, an aquarium housing many of the marine organisms found at Salt Point, and facilities for multi-media presentations. In addition, space should be available for a reference library on the natural and cultural resources of Salt Point, an herbarium, and evening interpretive programs.

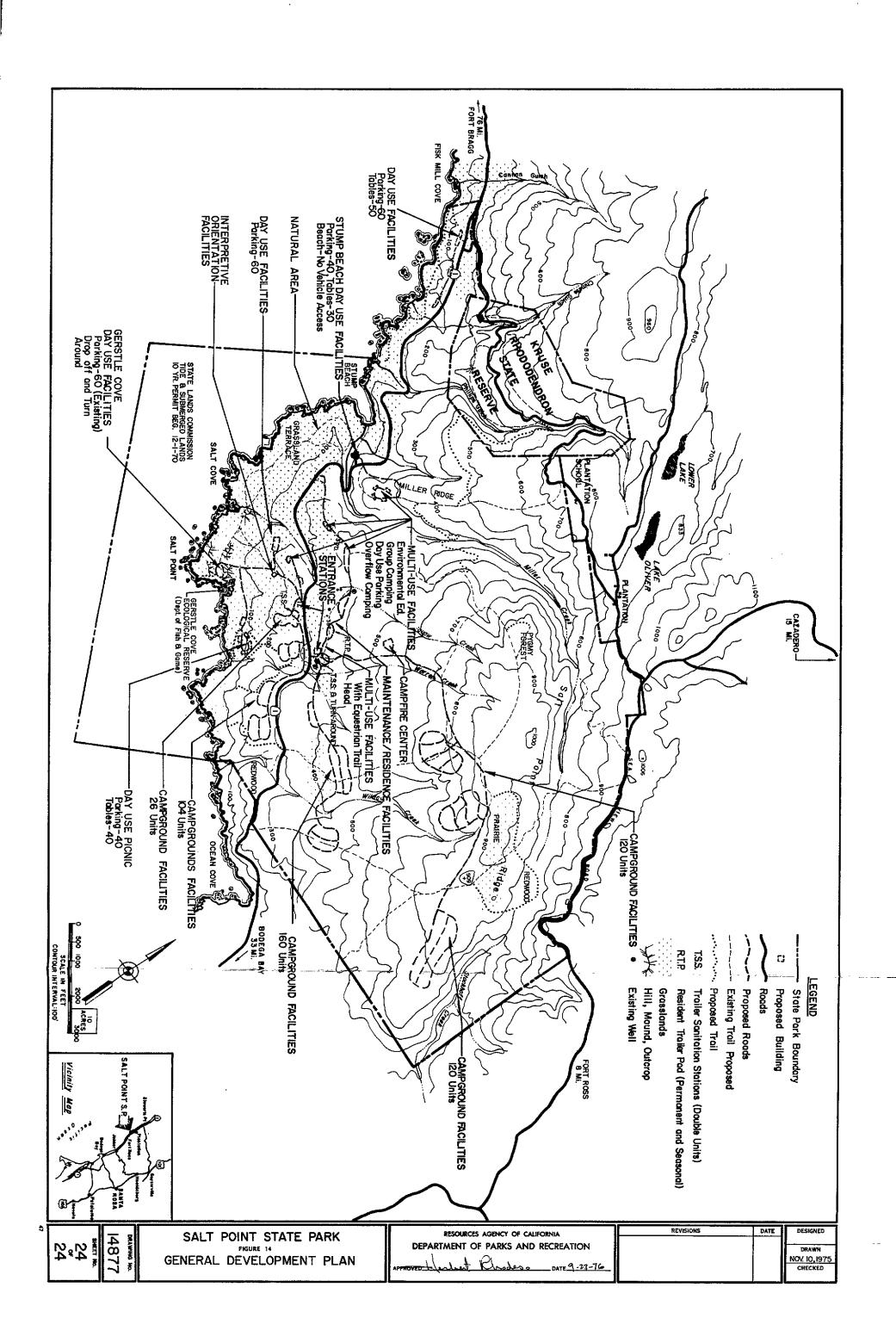
Campsite and Day-use Area: Centrally located in each campground and day-use area should be an exhibit panel providing orientation to Salt Point (with map noting points of interest), general information on the State Park System (especially on parks nearby), a listing of the interpretive programs available to visitors, and specific information on any unique historical, ecological, or recreational features found in the immediate area. Ideally, each developed area in the park will be within easy walking distance of a nature trail or scenic overlook.

Self-Guiding Nature Trail: At least two nature trails should be established early in the development of Salt Point. One of these trails should be located on the ocean bluffs — the area near Stump Beach and the area surrounding Gerstle Cove are particularly suitable locations. Another, longer trail should be established that transects as many of the coastal plant communities as possible.

Consideration should be given to developing a small children's area near the campgrounds. Ideas for such an area might include objects that can be touched and handled, materials and directions for building a small Indian house, dried kelp for tasting, a mortar and pestle for pounding acorns, etc.

Publications: Publications can be an effective part of the interpretive program. Many guides and short histories of the area are currently available. Others could be developed that deal specifically with the resources of Salt Point. Also, self-guiding nature trail pamphlets should be utilized so that interpretive signing can be kept to a minimum.

Personal Services: Evening programs featuring slide shows, films and presentations at the interpretive center should be a part of the interpretive program at Salt Point. Other personal services that could be offered at Salt Point include guided walks, underwater tours, supervised environmental living programs, and demonstrations of Indian methods of food preparation, salt collection, etc.









ENVIRONMENTAL IMPACT REPORT

Project Description

Salt Point State Park occupies 3,363 acres along the Sonoma County shoreline about 23 miles north of the town of Jenner, or, roughly, a 2½-hour drive from San Francisco. Highway 1 divides the park, providing convenient access to the existing campground and day-use facilities.

Salt Point State Park is one of the very few low, coastal terraces where there is relatively easy access to the water's edge for fishing, diving, and exploring that is found along the north coast. The present recreation facilities are inadequate. With the added overnight and day-use facilities recommended in this report, this park can help meet an increasing demand for recreation space.

Projected Environmental Impacts

The following describes the direct and indirect impacts of the project on the environment, giving consideration to both the short-term and long-term effects.

Air Quality

Air quality will be diminished at times due to an expected increase in the number of park visitors. Until such time as present vehicular air pollution will have been controlled or minimized, low to possibly moderate levels of air pollution may be expected during high-use weekends.

Noise

With the possibility of 3,500 people and 875 vehicles present at one time, noise levels, like air pollution, will most likely be increased.

Geology

No impacts are expected on the geological stability of the area from the development of this plan. The park is heavily influenced by the presence of the San Andreas Fault and other minor faults. All buildings will be located and designed to minimize the seismic hazard.

Topography

The proposed construction will entail comparatively low to very moderate topographic modifications. Most foreseen changes will be in the development of roads that cross creeks and drainages; for example, the general area where Warren Creek is crossed by Highway 1 and two park interior roads. Minor roads, campground spurs and parking cuts and fills may involve some topographic modification.

Soils

Moderate impacts on the soils are expected, with degrees of modification to soil compaction, permeability, soil horizons and soil productivity. Soil compaction will occur mostly around areas heavily used by autos and people such as parking lots and campgrounds. Within these areas of compaction, run-off rates may increase.

Digging up and filling in for structural foundations and water lines will cause soil horizons to be thoroughly intermixed.

Vegetation

With the construction of roughly 13 miles of roads, approximately 260 day-use parking spaces, camp spurs, restrooms, and service facilities, roughly 122 acres, or 4 percent of the land, will be developed.

Most of this impact will occur in wooded, gentle terrain and some on the marine terrace.

The grasses on the marine terrace will suffer more than the trees and brush, because the grasslands are relatively susceptible to erosion due to human activity. And, too, there are fewer acres of grasslands as compared to forested lands along the coast.

Veratrum fimbriatum, a rare and endangered plant species, has been discovered and mapped. No elements of the general development plan will directly affect this species. Minor effects are expected in the (second growth) redwood and in the pygmy forest as interpretive trails are developed throughout.

Wildlife

Minor impacts are expected on the general fauna populations. As the vegetation is removed for construction, the established habitats will be affected. Most animals, however, have the ability to relocate and readjust, depending upon their individual situation. With the possibility of 3,500 people present, most habitats will probably experience periodic disturbances. These disturbances may occur daily in the day-use parking areas and campgrounds; however, the general impact will be seasonal with summer use having the greatest effect. Heavily-used trails connecting day-use, picnicking and parking areas and campgrounds will be continually affected; trails to the remote areas will have generally only intermittent impacts.

Marine Life Quality

The population and quality of marine life within Gerstle Cove has diminished steadily since 1968, but in the small, protected Gerstle Cove Ecological Reserve, where fishing is not allowed, the quality of marine life has improved.

With additional recreation facilities, the number of divers using the cove is expected to increase, potentially causing greater stress to marine populations, particularly abalone. However, since the decline of the sea otter population, which previously kept strict control of abalone populations, abalone has enjoyed uncommon abundance. The effect sport diving has on the marine population will continue to be studied.

Scenery

Some visual impacts are expected to occur in any place that construction takes place. The degree of impact depends on how well the project relates to the immediate surrounding environment.

The greatest visual impact potential is along the stretches of Highway 1 that traverse the open marine terraces. No parking lots will be located close to the highway. All campgrounds will be situated within forested areas, limiting any visual impact to the immediate area. Some visual alterations will be detectable from low-flying aircraft.

Water Quality

No long-lasting impacts to water quality are expected. Temporary siltation will probably occur at points where roads cross drainages; however, these channels should stabilize within two to three years as vegetation becomes reestablished. The areas where Warren Creek is crossed by Highway 1 and two internal roads are such locations. Almost all of Salt Point State Park is contained within complete watersheds. It is not now expected to occur, but any adverse impact created by the community of Plantation will affect Miller Creek which flows directly into Stump Beach and the Pacific Ocean.

Marine water quality should not be affected by construction of this project.

Cultural Factors

All known historical and archeological sites have been mapped and identified. All archeological finds are protected by law until their significant value can be determined. The General Development Plan has attempted to avoid all known cultural sites.

Unavoidable Adverse Environmental Effects

The necessary removal of vegetation to achieve planned results will create unavoidable adverse effects. This vegetation removal will cause some destruction of individual bird nests and homes of rodents, squirrels, rabbits, etc., resulting in either their relocation or death. Certain food supplies, such as pine nuts, berries, roots, will be destroyed causing those animals to seek food elsewhere.

As construction is implemented and hard surfaces are laid, the top soils will be removed. This will affect nearby vegetative roots having to adjust to changes in their water supply. In some cases, water from roads and parking lots will be directed into culverts, modifying some fauna habitats by increasing or decreasing the water supply in different areas..

The increase in automobile traffic and number of visitors will create an unavoidable increase in air and noise pollution. The noise factor will cause local fauna to seek refuge elsewhere.

The viewshed will also undergo some adverse effects assuming that the natural, pristine concept is desirable. Open space along the marine terrace will be intruded upon by a single road and four parking lots.

The viewshed will also undergo some adverse effects assuming that the natural, pristine concept is desirable. Open space along the marine terrace will be intruded upon by a single road and three parking lots.

Development brings with it the potential for secondary impact affecting archeological sites through changes in erosion factors and use of casual trails created by increased foot traffic.

Mitigation Measures Proposed to Minimize the Impact

The General Development Plan design concept is to disperse uses throughout the park to avoid concentrated effects of people and vehicles. This should lessen adverse impacts on localized areas and utilize the absorptive ability of all available locations.

Specific mitigating measures to be taken are:

- o In most cases, soils with excellent water-handling characteristics have been protected from disturbance to allow them to perform their intended function.
- o Cuts and fills will be kept to a minimum.
- o Sufficient road and drainage structures, such as culverts, berms, curbs, etc., will be employed to direct collected water to soil and water courses for proper distribution.
- o Parking lots will not be placed close to Highway 1 to preserve uninterrupted panoramic vistas for those park visitors walking along the grassland terraces. Parking will not be allowed outside of designated areas.
- o Adequate spacing of camp spurs (100 feet within the forested areas) will eliminate a sense of crowding.
- o If necessary, periodic fishing restrictions may be imposted at Gerstle Cove to maintain the quality of marine populations.
- o It is hoped that the intensive, reoccurring effects will be minimized through dispersement, allowing sufficient opportunity for vegetation to reestablish itself.

Alternatives to the Proposed Action

No Project. This approach would allow most of the acreage to continue its normal ecological succession uninterrupted; however, the area around Salt Point parking lot would continue to be degraded. (At present, parking at North Gerstle Cove of 90-120 vehicles is uncontrolled; the general development plan would limit it to 60 cars plus additional parking 1500' to the north, at the inland edge of the lower terrace.) A do-nothing approach does not achieve the objective of providing recreation opportunities as well as preserving high-value resources.

Development east of Highway 1 only. This action would create a lower concentration of people on the terraces, the area most sensitive to impact, and plants such as marine grasses might be able to reestablish themselves between use periods more easily.

However, this proposal was rejected for two reasons. First, the main attractions are the low terraces and the shoreline, and these can best be protected in the long run by providing adequate facilities and controlling access to them. Secondly, there would be a potential safety hazard created by requiring people to walk across Highway 1. There are existing locations adequate for campground and day-use facilities, as well as the existing use patterns.

Fewer facilities. Cutting down on the number of facilities, yet still allowing a variety of opportunities, is a viable alternative. This would mean fewer people to create impacts, but this would be an inefficient alternative, as fewer units would entail a higher construction and maintenance cost per unit.

Relationship of Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

This park has been singled out as an example of coast environment that needs to be protected and preserved for all to enjoy, including future generations. Steps must be taken soon in order that present misuses do not continue or accelerate the deterioration of the existing environmental situation. At the same time the public should be afforded an opportunity to experience and learn about the interesting resource qualities available here.

The proposed developments, by providing facilities for controlled recreation use of the resources, will protect the environment's long-term productivity.

Irreversible Environmental Changes Which Would Be Involved

Conversion of some open space on the marine terrace to parking will occur, and a few roads will be constructed through the interior vegetative areas. Some grading changes as a result of roads, parking, building sites, service yard, etc., will occur.

Growth Inducing Impact of the Proposed Action

Some public and private service demands are expected to result from the project. No major commercial or residential growth impact is anticipated.

Organizations Consulted in Preparing Environmental Impact Report

Advisory Board on Underwater Parks and Reserves Carl Siskind

Department of Transportation, State of California Bob Parker and Vic Graph

Division of Mines, State of California Michael E. Huffman

Regional Water Quality Control Board, North Coast Region, California Bob Tancre

Sonoma County Health Department Rich Lincoln

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